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Nuclear Security Briefing Book

2016 Edition

About the Centre for Science and Security Studies

The Centre for Science and Security Studies (CSSS) is a multi-disciplinary research centre based at King's College London. CSSS was created by a grant from the John D. and Catherine C. MacArthur Foundation in 2003 and brings together scientific experts with specialists in politics, international relations and history. Members of the Centre conduct scholarly and policy-relevant research on weapons proliferation, non-proliferation, verification and disarmament, space security and mass effect terrorism including the CBRN (chemical, biological, radiological and nuclear) dimension.

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Glossary

<i>CBRN</i>	chemical, biological, radiological, nuclear
<i>CPPNM</i>	Convention on the Physical Protection of Nuclear Material
<i>EU</i>	European Union
<i>GICNT</i>	Global Initiative to Combat Nuclear Terrorism
<i>GP</i>	G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction
<i>HEU</i>	highly enriched uranium
<i>IAEA</i>	International Atomic Energy Agency
<i>ICSANT</i>	International Convention for the Suppression of Acts of Nuclear Terrorism
<i>IND</i>	improvised nuclear device
<i>IPPAS</i>	International Physical Protection Advisory Service
<i>ITDB</i>	Illicit Trafficking Data Base
<i>LEU</i>	low enriched uranium
<i>NPT</i>	Treaty on the Non-Proliferation of Nuclear Weapons
<i>NSF</i>	Nuclear Security Fund
<i>NSG</i>	Nuclear Suppliers Group
<i>NSP</i>	Nuclear Security Plan
<i>NSS</i>	Nuclear Security Summit
<i>RDD</i>	radiological dispersal device
<i>RED</i>	radiological emission device
<i>RID</i>	radiological incendiary device
<i>UN</i>	United Nations
<i>WMD</i>	weapons of mass destruction

Introduction

The Nuclear Security Briefing Book (NSBB) is designed as a reference guide for participants in the Nuclear Security Summit (NSS) process and other interested parties.

The NSBB adopts the definition of 'nuclear security' applied by the International Atomic Energy Agency (IAEA):

'the prevention and detection of, and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities'.¹

The Briefing Book is divided into two main parts.

Part I provides:

- A basic grounding in atomic physics, relevant materials and the generic scenarios generally perceived to comprise the concept of nuclear terrorism;
- An overview of the history of international cooperation in the field of nuclear security;
- An overview of the evolution and main outcomes of the NSS process to date with a brief consideration of the future of the process

Part II comprises:

- Original texts of various instruments and initiatives relevant to international cooperation in the field of nuclear security.

¹ 'Concepts and terms', IAEA, 20 June 2013, <http://www-ns.iaea.org/standards/concepts-terms.asp?1&l=90>

Executive Summary

The Nuclear Security Briefing Book (NSBB) is a reference guide designed for participants in the Nuclear Security Summit (NSS) process and other interested parties. The NSBB adopts the definition of 'nuclear security' applied by the International Atomic Energy Agency (IAEA):

The prevention and detection of, and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities.¹

The Briefing Book is divided into two main parts. Part I comprises three sections: (1) an introductory guide to nuclear terrorism; (2) an overview of the history of international cooperation in the field of nuclear security highlighting key instruments and initiatives; and (3) an overview of the evolution and main outcomes of the NSS process to date with a brief consideration of the future of the process. Part II comprises original texts and summaries of various instruments and initiatives relevant to international cooperation in the field of nuclear security.

(1) Nuclear Terrorism

The opening section of the NSBB provides background information on atomic physics, as well as relevant nuclear (highly enriched uranium, HEU, or plutonium, Pu) and radiological materials.

Scenarios

This is followed by an overview of the four scenarios generally considered to come under the concept of nuclear terrorism.²

Acquisition and detonation of an intact nuclear weapon from a state arsenal

This scenario would involve the theft of an intact nuclear weapon by a terrorist group or the provision of such a weapon by a state actor. However, there are no substantiated open source reports of serious attempts by terrorist groups to steal a nuclear weapon, and this scenario would necessitate a group defeating the multi-layered command and control systems that surround nuclear weapons, and their intrinsic surety measures designed to prevent unauthorised use. State actors are also likely to be deterred from providing such a capability because the disincentives – notably retaliatory action – far outweigh the potential incentives if the source is attributed.

Acquisition of fissile nuclear material, construction and detonation of an improvised nuclear device (IND)

Terrorists could alternatively seek to construct and detonate a crude, improvised nuclear device (IND). In order to accomplish this a group would need to obtain fissile material (HEU or Pu) and an appropriate weapon design. A 2006 study by RAND, which considered the detonation of a 10 kT IND in Los Angeles, projected 60,000 immediate deaths, 150,000 individuals exposed to hazardous levels of radiation and economic costs potentially exceeding \$1 trillion.³

Terrorists interested in developing an IND could either seek to steal fissile material from a nuclear facility or purchase it on the black-market. Here attractive targets for theft include civil HEU fuelled research reactors, critical assemblies, and isotope production reactors, of which there are over 100 such facilities worldwide.⁴ These facilities, which are typically located at academic or research institutes, may lack the security measures typically in place at nuclear power plants.

According to the International Panel on Fissile Materials, as of January 2013 there existed globally approximately 1,345 tonnes of HEU and 500 tonnes of separated Pu in both civil and military programmes.⁵ This is theoretically enough material for 10,000s of weapons.

The IAEA's Illicit Trafficking Data Base (ITDB) lists 16 confirmed

incidences of unauthorised possession of HEU or Pu from 1993 to 2014, predominately sub-kilogram quantities.⁶ However, it is difficult to know if this is just the tip of the iceberg or whether it provides an accurate reflection of the black-market in nuclear materials.

Attack on or sabotage of a nuclear or radiological facility or transport

The 2011 Fukushima Daiichi nuclear accident served to dramatically highlight what a highly successful terrorist attack against a nuclear power reactor might achieve if it was able to disrupt both general and back-up cooling systems.

The sabotage of a nuclear or radiological facility or transport would not lead to a nuclear explosion, but could result in the release of large amounts of radiation. Such an event would likely have significant psychological effects and inflict significant economic damage on the country in question and the wider nuclear industry.

Facilities of most concern are those containing significant inventories of radioactive materials such as: nuclear power and research reactors; spent fuel storage facilities; and reprocessing plants.⁷

There exists a range of different attack routes in this context including: aeroplane collisions; truck bombs; armed commando raids; insider plots; and cyber attacks.

Acquisition of radiological materials, construction and use of a radiological weapon

Finally, media reporting about radiological terrorism has tended to focus on the 'dirty bomb' scenario, the explosive dispersal of radioactive material. However, other valid attack routes exist.

The policy and technical literature typically categorises radiological weapons as either: radiological dispersal devices (RDD) – these include 'dirty bombs' but also non-explosive dispersal such as the aerosolisation of radioactive materials and their use, for example, to contaminate food or water; radiological emission devices (RED) – strong fixed or mobile radioactive sources; or radiological incendiary devices (RID) – which combine radioactive materials with fire and could be used to complicate fire fighting efforts.

To construct a radiological weapon, terrorists would have to obtain a suitable radioactive material such as caesium-137, for example. This could be done by targeting abandoned ('orphaned') sources, buying sources on the black-market or stealing them from commercial or public sector users.

Radiological devices are not generally perceived to be capable of causing mass destruction, but their use could have majorly disruptive effects putting targeted areas out of action for months or years due to radioactive contamination.

(2) International Cooperation

With a history that stretches back over four decades, the international nuclear security framework comprises a complex and patchwork set of formal and informal instruments and initiatives designed, in general terms, to prevent, deter and respond to non-state actor acquisition and use of nuclear material for malign purposes.

The evolution of this framework has been sporadic with policies generally developing in response to emerging threats or perceived gaps in existing security structures.

Nuclear security framework

International Atomic Energy Agency (IAEA) Information Circular 225 (INFCIRC/225)

The IAEA first published its advisory document 'Information Circular 225 (INFCIRC/225) – The Physical Protection of Nuclear Material' in 1975.⁸

INFCIRC/225 is not a formal set of regulations but a 'best practice' document offering a series of recommendations for states on protecting and controlling radioactive materials of potential use to terrorist groups.

While not legally binding, INFCIRC/225 laid the foundations for subsequent nuclear security efforts. It has undergone five revisions over time to reflect changes in threat perceptions regarding the security of nuclear materials, and a concerted effort to maintain coherence across a rapidly changing policy landscape.⁹ The most recent version, INFCIRC/225/Rev.5, was published in 2011.¹⁰

Convention on Physical Protection of Nuclear Material (CPPNM)

At the IAEA General Conference of September 1975, a resolution (GC/XIX/RES/328) called upon IAEA Member States and the Director General 'to consider ways and means of facilitating international co-operation in dealing further with problems of physical protection of nuclear facilities and materials which are common to Member States'.¹¹ An expert group was subsequently formed which recommended the negotiation of agreements or conventions on cooperation among states, particularly in terms of protecting nuclear material in international transport.

The Convention on the Physical Protection of Nuclear Material (CPPNM) was signed in Vienna and New York on 3 March 1980. The agreed text was a diluted form of the resolution put forward at the 1975 General Conference. Originally conceived to be wide-ranging with provisions for all non-military nuclear material, associated facilities and transports, the convention was narrowed to cover just civilian nuclear material in international transit.¹² The CPPNM has, however, provided a baseline guide for the physical protection of nuclear materials and facilities entering into force on 8 February 1987. It remains the 'only international legally binding undertaking in the area of physical protection of nuclear material'.¹³

One challenge to the implementation of the CPPNM has been its lack of a verification mechanism to ensure that standards set are met. On balance, though, the CPPNM and INFCIRC/225 provided the cornerstone for the nascent nuclear security framework and gave momentum to its normative development.

IAEA Incident and Trafficking Database

The end of the Cold War brought a range of new challenges in the context of nuclear security. The dissolution of the Soviet Union left behind a sprawling complex of nuclear facilities that had produced and stored nuclear materials for both civilian and military purposes. Fears of nuclear weapons and related materials and technology reaching the black market prompted the IAEA to create the Illicit Trafficking Database (ITDB) in 1995.¹⁴

Since renamed the 'Incident and Trafficking Database: Incidents of nuclear and other radioactive material out of regulatory control', the ITDB logs reported incidents of illicit trafficking and other unauthorized activities and events involving nuclear and other radioactive material outside of regulatory control. It facilitates the exchange of information on incidents among States. From January 1993 to December 2014, a total of 2,734 incidents were reported to the database.¹⁵

IAEA International Physical Protection Advisory Service (IPPAS)

The IAEA also established its International Physical Protection Advisory Service (IPPAS) in 1995. The service constitutes a form of international peer review and advice

with the aim of facilitating a more standardised approach to the domestic implementation of the provisions of INFCIRC/225. IPPAS evaluations are performed on the request of IAEA member states.¹⁶

UN Security Council Resolution 1373

The terrorist attacks of 9/11 gave new impetus to concerns regarding the threat of nuclear terrorism. Al Qaeda had proved its ability to circumvent security measures to launch multiple and simultaneous mass-casualty attacks against the continental United States. This episode profoundly influenced perceptions of the evolving global security landscape in the United States and elsewhere.

On 28 September 2001, less than three weeks after the 9/11 attacks, the UN Security Council passed unprecedented measures related to counter-terrorism under Resolution 1373.

The Resolution expressed the Security Council's deep concern at 'the increase, in various regions of the world, of acts of terrorism motivated by intolerance or extremism', and reaffirmed 'the need to combat by all means, in accordance with the Charter of the United Nations, threats to international peace and security caused by terrorist acts'.¹⁷

Specifically related to nuclear security, 1373 'notes with concern the close connection between international terrorism and transnational organized crime, illicit drugs, money-laundering, illegal arms-trafficking, and illegal movement of nuclear, chemical, biological and other potentially deadly materials, and in this regard *emphasizes* the need to enhance coordination of efforts on national, subregional, regional and international levels in order to strengthen a global response to this serious challenge and threat to international security'.¹⁸

IAEA Nuclear Security Plan

The attacks of 9/11 also served as a catalyst for additional action by the IAEA. In March 2002, the Agency 'embarked on its first comprehensive programme to combat the risk of nuclear terrorism by assisting States in strengthening their nuclear security'.¹⁹

In March 2002 the IAEA Board of Governors (GOV/2002/10) approved the Agency's first three-year Nuclear Security Plan (NSP).²⁰ The NSP has since been renewed and updated every three years and represents a core element of the IAEA nuclear safety and security programme.²¹

IAEA Nuclear Security Fund

The Board of Governors also approved the creation of a voluntary funding mechanism - the Nuclear Security Fund (NSF) - in March 2002.²² The fund was designed to 'support, amongst others things, the implementation of nuclear security activities to prevent, detect and respond to nuclear terrorism', and member states were called on to make contributions to the NSF.²³

G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction

Following 9/11, the administration of President George W. Bush devoted considerable effort to advancing international cooperative efforts to counter the threat of nuclear and other forms of WMD terrorism. To this end, the United States pressed its 'fellow G8 governments to establish a new initiative through which to collaborate on threat reduction, and to jointly commit a substantial amount of funding and technical expertise to implement projects in line with an agreed set of priorities'.²⁴

The new initiative was named the Global Partnership (GP) Against the Spread of Weapons and Materials of Mass Destruction and was launched in 2002 at the G8 summit in Kananaskis, Canada. It was envisaged as a 10-year initiative

'to prevent terrorists or states that support them from acquiring or developing weapons of mass destruction (WMD)'.²⁵ The G8 states collectively pledged \$20 billion 'to address the CBRN legacy challenge in the period up to 2012'.²⁶

The United States was the principal financial sponsor, committing \$10 billion to the initiative based on its existing \$1 billion per annum threat reduction programmes. The remaining \$10 billion was to be provided by the other G8 partners. The GP subsequently expanded to include 22 countries plus the EU.

The GP was unprecedented in terms of scale and funding, and highlighted the significance attached to the threat of CBRN terrorism. Moreover, the duration of the GP recognised the need for a long-term approach to addressing the security challenges at hand.²⁷

Building on pre-9/11 threat reduction efforts pursued by the United States and others, the initial focus of the GP was on Russia and the other former Soviet republics because of the considerable inventory of CBRN-related weapons and materials located there.

In more general terms, the GP called on all states to commit to a set of six principles aimed at strengthening CBRN security.²⁸ From 2004 the GP also adopted as a priority the implementation of UN Security Council Resolution 1540. The GP was renewed beyond the original 10-year mandate at the 2011 G8 summit in Deauville, France. As part of the renewal process, four priority areas were set out including securing nuclear and radiological materials and implementing 1540.

UN Security Council Resolution 1540

With 'proclamations regarding the intent to acquire WMD by groups such as Al Qaeda', and in light of 'revelations regarding the spread of WMD through clandestine networks, such as that of Abdul Qadeer Khan', it became clear that there was a need for a new means of tackling the threat of WMD terrorism.²⁹ In this context, the UN Security Council unanimously adopted Resolution 1540 in April 2004.

1540 was a comprehensive resolution imposing 'binding obligations on all States to adopt legislation to prevent the proliferation of nuclear, chemical and biological weapons, and their means of delivery, and establish appropriate domestic controls over related materials to prevent their illicit trafficking'.³⁰

The resolution requires that states adopt appropriate measures to ensure the security of WMD and related materials in areas such as physical protection, transport, border controls, export and transshipment controls.

Code of Conduct on the Safety and Security of Radioactive Sources

In March 2001 a Code of Conduct on the Safety and Security of Radioactive Sources was published by the IAEA. A revised version was approved by the Board of Governors in September 2003, with the most recent version published in January 2004.

The Code provides guidance on necessary measures to protect against the harmful effects of accidents or malicious acts involving radioactive sources. Divided into three parts, the Code provides definitions of key terms, explains its objectives, and provides guidance in several areas. These include: general matters; legislation and regulations; regulatory body; import and export of radioactive sources; the role of the IAEA; and dissemination of the Code.³¹

An annex categorises radioactive sources based on their radiation effects should they be involved in an accident or malicious incident, and the IAEA has developed practical

guidance for member states wishing to comply with the Code.³²

2005 Amendment to the CPPNM

States Parties to the CPPNM adopted by consensus an Amendment to the convention on 8 July 2005. This broadened the scope of obligations set out under the original text making it a legal obligation for States Parties to protect nuclear facilities and material in peaceful domestic use, storage and transport.

The Amendment also provided for expanded cooperation between and among States regarding rapid measures to locate and recover stolen or smuggled nuclear material, mitigate any radiological consequences of sabotage, and prevent and combat related offences.³³

The Amendment has not yet entered into force, since it requires the approval of two thirds of states parties to the Convention. At the time of writing, the amendment has 71 contracting states, 24 signatures short of entry into force.³⁴

International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT)

Another significant milestone in the evolution of the nuclear security framework came with the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT). Designed to criminalise acts of nuclear terrorism and to encourage international coordination to prevent, investigate and punish such acts, ICSANT was signed in 2005 and entered into force in 2007. At the time of writing it has 115 signatories and 90 states parties.³⁵

By incorporating 'the broadest possible definition of terrorist acts related to the use, or threat of use, of nuclear components' the convention was designed to counter threats to use nuclear components by individuals or organizations, regardless of the object being attacked.³⁶

The convention requires States Parties to 'make certain acts criminal offences under national law, to establish jurisdiction over such offenses, to prosecute or extradite persons alleged to have committed the defined criminal offences, and to engage in cooperation and mutual legal assistance with respect to objectives of the Convention'.³⁷

Global Initiative to Combat Nuclear Terrorism (GICNT)

On 15 July 2006 a new initiative – the Global Initiative to Combat Nuclear Terrorism (GICNT) – was announced by Russia and the United States. GICNT reflected a perceived need for an overarching initiative that would focus efforts and raise international awareness of the various elements of the now elaborate nuclear security architecture. GICNT was described as a partnership of likeminded nations to 'expand and accelerate efforts that develop partnership capacity to combat nuclear terrorism on a determined and systematic basis'.³⁸

It should be noted that 'GICNT is not a formal institution, nor is it a treaty organisation, and there is no administrative secretariat or country subscriptions. GICNT does not exist in isolation but aims to build on wider efforts by the international community to meet the threat of nuclear terrorism'.³⁹

GICNT currently has 85 partner countries and 4 official observers.⁴⁰ It calls on those states concerned to commit to voluntarily implementing existing nuclear security-related legislation to suppress and mitigate acts of nuclear terrorism. Partners subscribe to a set of GICNT principles.

Nuclear Security Summit Process

The Nuclear Security Summit (NSS) process can be traced to 5 April 2009 and US President Barack Obama's Prague speech during which he noted that terrorists were 'determined to buy, build or steal' a nuclear weapon and that

this represented 'the most immediate and extreme threat to global security'.⁴¹

The Obama administration's assessment of the threat was accompanied by the announcement of measures designed to combat nuclear terrorism including 'a new international effort to secure all vulnerable nuclear material around the world within four years', and plans for a 'Global Summit on Nuclear Security' to be held in the United States within the year.⁴²

In July 2009 President Obama noted that the participants invited to the upcoming 'Global Nuclear Summit' would 'discuss steps we can take to secure loose nuclear materials; combat smuggling; and deter, detect, and disrupt attempts at nuclear terrorism'.⁴³

NSS 2010

The inaugural NSS was held on 12-13 April 2010 in Washington, DC. The summit was attended by high level political representatives from 47 invited countries, the UN, the EU and the IAEA. During the summit the participants addressed four core issues:

- The threat
- National actions that countries can or have taken to secure nuclear material, prevent nuclear smuggling and generally strengthen provisions for nuclear security
- The central role of the IAEA in the field
- Measures that countries can take to strengthen the international nuclear security policy architecture

Communiqué

The summit communiqué laid out a series of broad points of agreement and began by noting that, 'Nuclear terrorism is one of the most challenging threats to international security, and strong nuclear security measures are the most effective means to prevent terrorists, criminals, or other unauthorized actors from acquiring nuclear materials'.⁴⁴ It also welcomed and endorsed 'President Obama's call to secure all vulnerable nuclear material in four years...' While the seriousness of the threat was recognised, it had not been possible to reach a clear consensus in this area given the many different perspectives represented in the NSS process. The inclusion in the final communiqué of a reference to encouraging efforts to secure non-nuclear radioactive materials illustrated that some participants viewed securing these as a greater priority than securing vulnerable nuclear material.

The communiqué further stated that, 'maintaining effective nuclear security will require continuous national efforts facilitated by international cooperation' but emphasised this would be 'undertaken on a voluntary basis by States' and would require 'dialogue and cooperation with all states'.

In recognition of the sensitivities associated with protecting the rights of non-nuclear weapon states under the NPT, the participants also emphasised their support for 'the implementation of strong nuclear security practices that will not infringe upon the rights of States to develop and utilize nuclear energy for peaceful purposes and technology and will facilitate international cooperation in the field of nuclear security'.

The primacy of state responsibility in providing for effective nuclear security was highlighted. An emphasis was placed on the responsibility of states to secure all nuclear materials and facilities under their control, including military designated, as well as to prevent access by non-state actors to information or technology that could enable malign use of nuclear materials. Highly enriched uranium and separated plutonium were singled out as requiring special precautions and the communiqué encouraged 'the conversion of reactors from highly enriched to low enriched uranium fuel and minimization of use of highly enriched uranium, where technically and economically feasible'.

The Washington Work Plan and National Commitments

The communiqué was accompanied by a Work Plan to serve 'as guidance for national and international action including through cooperation within the context of relevant international fora and organizations'.⁴⁵ Through this document the participating states made a political commitment to 'carry out, on a voluntary basis, applicable portions of this Work Plan, consistent with respective national laws and international obligations, in all aspects of the storage, use, transportation and disposal of nuclear materials and in preventing non-state actors from obtaining the information required to use such material for malicious purposes'.

In addition to signing up to the communiqué and the Work Plan, many of the participants at the summit made specific commitments ('house gifts'), including national actions to enhance domestic nuclear security arrangements, and working through bilateral and multilateral initiatives to enhance nuclear security in a global context.

Next steps

To judge progress in implementing the 2010 Work Plan and national commitments, and to provide an opportunity for additional measures to be taken by participating states, including actions related to the four-year lockdown plan, it was agreed a second NSS would be held in 2012. The summit's communiqué closed noting that the next NSS would be held in the Republic of Korea.⁴⁶

NSS 2012

The NSS in Seoul was held on 26-27 March 2012. The original 47 countries plus six new ones were invited with Interpol also attending alongside the UN, IAEA and EU.⁴⁷ During the summit the participants addressed three core issues:

- Progress since 2010;
- National measures and international cooperation to enhance nuclear security, future commitments; and
- The nuclear security and safety interface.

While there was some debate prior to the Seoul summit on whether the nuclear security-safety interface should be addressed, the government of the Republic of Korea included it on the agenda as a direct result of the Tsunami-induced nuclear accident at Fukushima Daiichi in nearby Japan on 11 March 2011.

Communiqué, National Commitments and Joint Statements

The summit communiqué noted that nuclear terrorism continued 'to be one of the most challenging threats to international security', a challenge that required 'strong national measures and international cooperation given its potential global political, economic, social, and psychological consequences'.⁴⁸

The participants renewed the general political commitments made at the 2010 summit, agreed to 'continue to use the Washington Communiqué and Work Plan as a basis' for future work to advance nuclear security objectives, and stressed the 'fundamental responsibility of States' for nuclear security.

On this latter point the communiqué also recognized 'the fundamental responsibility of States to maintain effective security of other radioactive materials', thereby reflecting the interest of many participating states in this aspect of the agenda.

In recognition of the Fukushima Daiichi accident the communiqué noted 'the nexus between nuclear security and nuclear safety' and that 'sustained efforts are required to address the issues of nuclear safety and nuclear security in a coherent manner that will help ensure the safe and secure peaceful uses of nuclear energy'.

The participants agreed to 'make every possible effort to achieve further progress' in 11 key areas:

- Global Nuclear Security Architecture
- Role of the IAEA
- Nuclear Materials
- Radioactive Sources
- Nuclear Security and Safety
- Transportation Security
- Combating Illicit Trafficking
- Nuclear Forensics
- Nuclear Security Culture
- Information security
- International Cooperation

Progress since 2010

In terms of progress since the 2010 summit, participants in Seoul reported on key areas where positive movement had been realised in the intervening two years. Progress in the following areas were noted:

- Removing HEU or Converting HEU to Non-military Use
- Disposing and Securing Plutonium
- Converting Research Reactors and Medical Isotope Production Facilities using HEU fuel to LEU fuel
- Strengthening Nuclear Security-Related International Conventions and Multilateral Initiatives
- Establishing Centers of Excellence
- Supporting the Activities of the IAEA
- Countering the Illicit Trafficking of Nuclear and Radiological Materials
- Hosting of Nuclear Security Conferences and Events

NSS 2014

On 24-25 March 2014 the third summit in the NSS process will be hosted by the government of The Netherlands in The Hague. Themes and issues to be addressed include:

- Reducing the amount of nuclear material in the world;
- Improving the security of nuclear material and radioactive sources;
- Improving international cooperation.⁴⁹

More specifically, The Netherlands hopes to make progress on:

- Closer cooperation between government and the industry on nuclear security
- The sharing of information on the quality of nuclear security systems
- Enhancing the physical security and reducing the use of vulnerable fissile material that can be used in nuclear weapons
- Tightening up the international system of treaties on nuclear security
- Fostering a more effective dialogue between the public and private sectors on nuclear security measures⁵⁰
- Progress on radioactive source security.

The summit will review progress on commitments made at the previous two summits and – given that there will be a fourth summit in 2016 – the 2014 event will also feature another round of national commitments to be reported on at the 2016 meeting.

NSS 2016

During a speech in Berlin on 19 June 2013, President Obama announced that, 'America will host a summit in 2016 to continue our efforts to secure nuclear materials around the world'.⁵¹ It is widely assumed, however, that the 2016 event – the fourth in the series – will be the final summit in the NSS process.

Beyond the NSS process

There has been speculation about how high-level political momentum will be maintained beyond the 2016 NSS in order to ensure efforts to prevent nuclear terrorism continue to be accorded sufficient international attention.

It has been speculated that the optimum way to do this may be for the IAEA to take the lead role. Indeed, some 16 months after the Seoul summit, the IAEA organized 'The International Conference on Nuclear Security: Enhancing Global Efforts' in Vienna on 1–5 July 2013. It was the first time the Agency had convened this type of conference and, unlike the NSS process, the IAEA conference was not just open to invited parties.

The conference was launched with a ministerial session where 69 government ministers and other heads of delegation delivered statements.⁵² It also included the release of a Ministerial Declaration, which placed an emphasis on most of the same issues covered by the NSS communiqués in 2010 and 2012. It closed with a 'call on the IAEA to consider organizing international conferences on nuclear security every three years'.⁵³

Notes

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Part I

The Evolution of International Nuclear Security Cooperation

(1) Nuclear Terrorism

This section provides a basic grounding in atomic physics and relevant materials, as well as the generic scenarios generally perceived to comprise the concept of nuclear terrorism. In doing so it provides the background technical knowledge required to fully understand the nature and evolution of international efforts to strengthen nuclear security.

Basic Atomic Physics

A chemical element consists of basic building blocks, called atoms, which themselves contain 'sub-atomic' particles. These particles are of three types: protons, neutrons and electrons. Protons (positively charged particles), together with neutrons (uncharged particles) make up an atom's core or nucleus. Electrons (negatively charged particles) are identical in number to the protons, but are found outside of the nucleus of the atom. All chemical elements are defined and distinguished from each other by the number of protons/electrons their atoms contain, termed their atomic number. Examples of atomic numbers are 1 for an atom of hydrogen and 94 for an atom of plutonium.

While all atoms of an element must have the same number of protons/electrons, they may differ in terms of the number of neutrons. These variants are called isotopes of an element. Isotopes of a particular element are chemically identical although they may have very different nuclear properties. Isotopes are normally identified by the sum of their protons and neutrons. Thus 'Uranium 235', often shortened to the notation 'U235' (or 'U-235'), indicates the isotope of uranium that contains 235 (92+143) protons and neutrons in the nucleus of each atom. 'Plutonium 239', or 'Pu239' (or 'Pu-239'), indicates the isotope of plutonium that contains 239 (94+145) protons and neutrons in the nucleus of each atom.

Nuclear Materials

Article XX of the IAEA statute, lists the three basic nuclear materials: uranium, plutonium and thorium.¹ These are materials that can be utilised either directly or following further processing in nuclear reactors or nuclear weapons to produce energy through nuclear fission. Nuclear fission is the splitting of the nucleus of an atom into two or more parts. Not all isotopes of these materials undergo fission; those that do are called fissile isotopes. To produce significant amounts of energy this must occur as part of a self-sustaining 'chain reaction', whereby neutrons produced from the fission of nuclear materials hit and split additional 'fissile' nuclei. This is a process which normally only occurs when certain heavy elements are bombarded by neutrons under favourable conditions.

By far the most widely used fissile isotopes, and hence the most important from a nuclear terrorism perspective, are the isotopes Uranium 235 (U-235) and Plutonium 239 (Pu-239). U-235 forms only 0.7 per cent of natural uranium ore, which is mostly made up of non-fissile U-238. Plutonium does not exist at all in nature and has to be produced in a nuclear reactor from U-238 and then extracted through a chemical process known as reprocessing.

For use in most nuclear reactors and in nuclear weapons the percentage of U-235 in uranium has to be increased in a process known as enrichment. For light water reactors (LWRs), the most widespread type of nuclear power reactor, this has to be increased to around 3-5%. In contrast smaller reactors used for research purposes have traditionally used uranium enriched to a level greater than 20%. Nuclear weapons typically use uranium enriched to around 90% U-235. Materials with differing uranium enrichment levels can be broadly categorised as either: natural uranium, 0.7% U-235; low enriched uranium (LEU), less than 20% U-235; high enriched uranium (HEU), equal or greater than 20% U-235; and weapons-grade uranium, approximately 90% U-235. It is theoretically possible to use HEU of any enrichment level in a nuclear weapon although, as the percentage of U-235 decreases,

the amount of material required increases exponentially.

Plutonium is often preferred to uranium in state-developed nuclear weapon designs, as less plutonium than uranium is required to produce a given yield. Plutonium with 93 per cent or above Pu-239 constitutes weapons grade material, though there are claims that devices have been exploded using plutonium with much lower concentrations of this isotope.² Such weapons, however, tend to have uncertain yields and give off dangerous radiation, hence higher concentrations are preferred.

Radiological Materials

Radiological materials contain isotopes with nuclei that have excess energy and are hence unstable. These are known as radioactive isotopes (or radioisotopes). Radioisotopes dissipate this excess energy through the spontaneous emission of ionising radiation from the nucleus, in a process known as radioactive decay. For a particular isotope this decay occurs at a fixed rate, which is governed by its half-life, the time taken for 50% of an unstable radioactive material to decay into a more stable state.

Ionising radiation is emitted from radioisotopes in three major forms: alpha particles – which consist of two protons and two neutrons; beta particles – an electron or its anti-particle (a positron); and gamma rays – highly energetic electromagnetic waves. These three radiation types differ in terms of their penetration length and level of ionisation.

Alpha particles are the most ionising of the three (up to 20 times more than beta or gamma radiation), but are stopped by a couple of centimetres of air or the outer layer of human skin. Beta radiation is more penetrating, although can usually be blocked by a few millimetres of aluminium or a layer of clothing. Gamma radiation is by far the most penetrating of the three and can pass through thick barriers. Centimetres of lead or several feet of concrete are required to stop the most energetic gamma rays.

Ionising radiation is capable of stripping electrons from atoms, creating ions and breaking chemical bonds.³ Within living tissue this causes cell damage. Although the human body has evolved natural cell repair mechanisms, if this damage is too severe it can result in cell death. Faults can also occur in the repair process producing cancerous cells. The absorption of significant doses of ionising radiation can increase an individual's cancer risk and extremely high doses can cause death.

Upwards of 3,000 radioisotopes have been identified, although only a small subset of these is of relevance to nuclear terrorism.⁴ Many radioisotopes have half-lives of less than a second and so decay too quickly for use in a radiological attack. Conversely, radioisotopes with long half-lives (greater than several thousand years) do not decay quickly enough to emit sufficient radiation to induce negative health effects. Radioisotopes of relevance must be both accessible in sufficient amounts and emit a significant fraction of their radiation over the lifetime of an individual source.

Although it is not possible to construct a definitive list, studies have identified the following radioisotopes of concern: Americium-241 (Am-241); Californium-252 (Cf-252); Cesium-137 (Cs-137); Cobalt-60 (Co-60); Iodine-131 (I-131); Iridium-192 (Ir-192); Polonium-210 (Po-210); Plutonium-238 (Pu-238); Plutonium-239 (Pu-239); Radium-226 (Ra-226); Strontium-90 (Sr-90).⁵ These sources are used across a range of industries and can be found at facilities such as hospitals, universities, construction sites, oil wells and blood banks.

Nuclear terrorism scenarios

The limited historical record upon which to draw complicates predictions when it comes to acts of nuclear terrorism. Most studies have extrapolated from the broader use of chemical, biological, radiological and nuclear (CBRN) materials where there are

numerous examples of non-state actors seeking to carry out malicious acts with such materials, in some cases successfully.⁶ Arguably the most high profile incident was the manufacture and use of sarin, a chemical nerve agent, on the Tokyo transport system in 1995 by the Japanese 'doomsday' cult Aum Shinrikyo, resulting in 13 deaths and hundreds of injuries.⁷ Aum had also engaged in an active albeit unsuccessful biological weapons programme and is reported to have been interested in acquiring nuclear weapons.⁸

In another example from the mid-1990s, Chechen separatists claimed to have planted containers holding radioactive materials – apparently stolen from a Russian hospital – in Moscow.⁹ A tip-off from the group reportedly resulted in Russian journalists discovering a container holding cesium-137 in a Moscow park.¹⁰ In the early 2000s, concerns regarding nuclear terrorism largely focused on Al Qaeda (AQ). These concerns have been fuelled by a number of developments: AQ leadership has expressed an interest in acquiring weapons of mass destruction (WMD); AQ has conducted experiments with crude chemical agents in camps in Afghanistan, pre-9/11; and an AQ affiliate, Jose Padilla, was implicated in a plot to detonate a 'dirty bomb' in the United States.¹¹

More recently, the threat posed by AQ has been overshadowed by that of the self-proclaimed Islamic State (IS), a jihadist extremist group active primarily in Syria and Iraq that has claimed responsibility for several mass-casualty terrorist attacks in the Middle East, North Africa and Europe. It is believed that IS has carried out chemical weapons attacks in Iraq and Syria using chlorine¹² and mustard gases.¹³ In July 2014, it was also reported that IS militants had seized 40 kilograms of low-grade uranium compound from Mosul University (Iraq).¹⁴ The material seized cannot be used in a crude nuclear device but could theoretically be used to manufacture a 'dirty bomb'.

Despite the relative lack of malicious incidents involving nuclear and radiological materials, however, it is possible to envision four broad scenarios in which terrorists could utilise such materials.¹⁵ These are outlined below:

Acquisition and detonation of a nuclear weapon from a state arsenal

The impact of a nuclear weapon from a state arsenal detonated in a major city would be devastating. Thankfully the technical barriers to this type of scenario are deemed by most analysts to be high, and to date there are no substantiated open source reports of serious attempts by terrorist groups to steal a nuclear weapon. This task would present a significant challenge to even the most well-resourced and determined of groups due to the need to defeat both the multi-layered command and control systems that surround nuclear weapons and their intrinsic surety measures, designed to prevent unauthorised use. However, with an estimated 15,695 nuclear weapons within the arsenals of nine states, this possibility cannot be ruled out.¹⁶ Here 'tactical' and retired weapons waiting dismantlement present arguably the most attractive targets due to their relative portability and in some cases lack of modern security features.¹⁷

The barriers to this scenario would of course be drastically lowered should a state, or rogue elements within it, willingly provide terrorists with a nuclear weapon. However, while many states have and continue to support terrorist groups, such a transfer is unlikely in the opinion of most analysts.¹⁸ Following the detonation of such a weapon, forensic and other investigatory techniques would be applied by the international community in an attempt to identify its origin. If pinpointed, a state sponsor would face significant retaliatory action that could threaten its very survival. With the costs far outweighing the benefits, then, states are likely to be deterred from such a course of action. Unauthorised theft and transfer by 'insiders' for financial, ideological or other reasons would be another way through which terrorists could acquire a nuclear weapon. However, while this route cannot be discounted, it would also appear to be unlikely because of the multiple colluding 'insiders' that would likely need to be co-opted into such a process.

Acquisition of weapons grade nuclear material, construction and detonation of an improvised nuclear device (IND)

Terrorists could instead seek to construct and then detonate an

improvised nuclear device (IND). In order to accomplish this, a group would need to obtain fissile material (HEU or plutonium) and an appropriate weapons design capable of inducing a rapidly increasing nuclear fission chain reaction. If successful, it is thought that the detonation of such an IND might deliver an explosive yield on the order of 10 to 20 kilotons (kT) (equivalent to 10,000-20,000 tons of TNT).¹⁹ This would be comparable with the first-generation nuclear weapons used at Hiroshima and Nagasaki in 1945. Although an IND would have a lower yield than most modern nuclear weapons, its detonation would produce similar physical effects and have a devastating impact on a major city. A 2006 study by RAND, which considered the detonation of a 10 kT IND in Los Angeles, estimated 60,000 immediate deaths, 150,000 individuals exposed to hazardous levels of radiation and economic costs that could exceed \$1 trillion.²⁰

The amount of fissile material required for an IND varies with the sophistication of the nuclear weapons design. Here the IAEA's definition of a significant quantity -- 'the approximate amount of nuclear material for which the possibility of manufacturing a nuclear explosive device cannot be excluded', (25 kg of HEU or 8 kg of Pu) provides a rough guide.²¹ According to the International Panel on Fissile Materials, as of January 2013, there exists globally approximately 1,345 tonnes of HEU and about 500 tonnes of separated plutonium in both civil and military programmes.²² This is theoretically enough material for 10,000s of weapons.

Terrorists interested in developing an IND could either seek to steal fissile material from a nuclear facility or purchase it on the black-market. Attractive targets for theft in this context include civil HEU-fuelled research reactors, critical assemblies and isotope production reactors, of which there are over 100 facilities worldwide.²³ These facilities are typically located at academic and research institutes and may lack security measures typically in place at nuclear power plants.

Uncertainties in accounting and the incomplete reporting of nuclear material thefts complicate estimates of the quantity of HEU and Pu outside of regulatory control. The IAEA's Illicit Trafficking Data Base (ITDB) lists 16 confirmed incidences of the unauthorised possession of HEU or Pu from 1993 to 2014, predominately sub-kilogram quantities.²⁴ However, it is difficult to know if this is just the tip of the iceberg or whether it provides an accurate reflection of the black-market in nuclear materials.

If a group were to obtain fissile material it would then need to be weaponised. The simplest route would involve the construction of a 'gun-type' device. This involves rapidly bringing together two sub-critical masses of HEU by propelling one -- using conventional explosive material -- along a thick tube, or gun-barrel, so it impacts the other with considerable velocity, creating the necessary conditions for the chain reaction. One study by Zimmerman and Lewis assessed that a gun-type IND using HEU could be constructed over a period of about one year by a team of 19 scientists, engineers and technicians.²⁵

A gun-type design could only be used for HEU and not Pu. If a terrorist group obtained Pu and wanted to construct an IND, it would need to design an 'implosion-type' device, which works by compressing a sub-critical spherical mass of fissile material until it becomes critical. This method is significantly more complicated than the gun-type device. However, its feasibility was demonstrated at least in theory by three PhD physicists at Lawrence Livermore National Laboratory in the United States in the 1960s. In the so-called Nth Country Experiment the aforementioned scientists lacked prior nuclear weapons experience or access to classified information, but developed a 'credible' device in less than three man-years.²⁶

Attack on or sabotage of a nuclear or radiological facility or transport

The 2011 Fukushima Daiichi nuclear accident served to dramatically highlight what a highly successful terrorist attack against a nuclear power reactor might achieve if it was able to disrupt both general and back-up cooling systems. The sabotage of a nuclear or radiological facility or transport would not lead to a nuclear explosion, as in the first two scenarios, but could result in the release of large amounts of radiation. This would likely have

significant psychological effects on the local population and inflict significant economic damage on the country in question and the wider nuclear industry, as demonstrated by the events at Fukushima. Facilities of most concern are those containing significant inventories of radioactive materials: nuclear power and research reactors; spent fuel storage facilities; and reprocessing plants.

There are a number of different potential attack routes in this context including: aeroplane collisions; truck bombs; armed commando raids; insider plots; and cyber attacks.

Acquisition of radiological materials, construction and use of a radiological weapon

Media reporting about radiological terrorism has tended to focus on the 'dirty bomb' scenario which would involve the explosive dispersal of radioactive material. However, other valid attack routes exist. The policy and technical literature typically categorises radiological weapons as either: radiological dispersal devices (RDD) – these include 'dirty bombs' but also non-explosive dispersal such as the aerosolisation of radioactive materials and their use, for example, to contaminate food or water; radiological emission devices (RED) – strong fixed or mobile radioactive sources; or radiological incendiary devices (RID) – which combine radioactive materials with fire and could be used to complicate fire fighting efforts.

Individuals can be exposed to radiation either externally or internally, with radioactive materials causing most harm inside the body. External radiation exposure from, for example, an RED is typically associated with gamma emitting radioisotopes because alpha and beta radiation is unable to penetrate human skin. Internal exposure, as highlighted by Acton et al., could occur through inhalation, ingestion or immersion in radioactive materials.²⁷

It is difficult to estimate the probable effects of radiological weapons as these are highly dependent on the scenarios in which they might be used. Studies by the Center for Strategic and International Studies and the Federation of American Scientists highlight the significant disruptive, psychological and economic effects that would likely occur if a radiological weapon is used in a city.²⁸ It is also possible to envision scenarios where radiological materials could be used to sicken and possibly kill hundreds of people.²⁹

In order to construct a radiological weapon, a terrorist group would first have to obtain suitable radioactive materials. A group would either have to find an abandoned (known as 'orphaned') radioactive source, buy a source on the black-market or steal one from commercial or public sector users. The danger posed by orphan sources was highlighted in 1987 in Goiânia, Brazil, where scrap metal merchants removed caesium-137 powder from an abandoned teletherapy unit, before unwittingly dispersing the radioisotope among segments of the local population. Four people were killed, 250 were injured and significant economic and social disruption resulted.³⁰ Sources could also potentially be acquired on the black market with figures from a recent study suggesting that 1,500 radiological materials were illicitly trafficked (including orphan sources) from 1991 to 2009.³¹

(2) International Cooperation

Concerns regarding the threat of nuclear terrorism have, since the early 1970s, given momentum to international efforts to prevent terrorists acquiring fissile or other radioactive material. With a history that stretches back over four decades, the international nuclear security framework comprises a complex set of instruments and initiatives designed, in general terms, to prevent, deter and respond to non-state actor acquisition and use of nuclear material for malign purposes. The evolution of this framework has been sporadic with policies generally developing in response to emerging threats or perceived gaps in existing security structures. The initiatives that emerged after the dissolution of the Soviet Union and the terrorist attacks of 11 September 2001, respectively, provide a testament to this effect.

The complexity of the framework is primarily due to the sporadic nature of its evolution; this 'patchwork of agreements, resolutions, regulations, and guidelines was adopted in different forums, at different times, by different countries, and with different accountability measures'.³² For this reason, the nuclear security policy landscape is often seen to be fragmented and lacking coherence.

This section provides an overview of the various multilateral policy instruments comprising the contemporary international nuclear security framework. It charts the evolution of the framework by exploring the events and drivers that prompted the formulation of specific international policy measures, shedding light on the debates and negotiations that preceded policy innovations, and providing an overview of the scope and intended aims of international nuclear security-related policies and initiatives.

The list of initiatives covered below is not exhaustive and it should be noted that they have been complemented and reinforced by additional efforts at the regional and state levels.

Early Years: 1970-1990

In the early 1970s perceptions of a growing threat of nuclear terrorism stemmed from a combination of three main factors. First, concerns were fuelled by evidence of regulatory weaknesses. In the mid-1960s, for example, the US Atomic Energy Commission discovered a substantial gap in one licensee's nuclear material inventory; 100kg of 90 per cent enriched uranium was unaccounted for in a fuel processing and fabrication plant in Pennsylvania.³³ In this context, the US authorities recognised that greater attention needed to be given to the regulation and control of nuclear materials. Concerns were also driven by a significant growth in international terrorist activity typified, for example, by the hostage massacre at the Munich Olympics in 1972 and the sharp rise in airplane hijackings. A third factor was the rapid growth of the civil nuclear power sector during this period, which brought with it a major expansion in nuclear facilities and associated material. Indeed, US Secretary of State Henry Kissinger linked fears regarding terrorism to the nuclear sector in a June 1974 memorandum acknowledging the 'problems associated with the increased availability of weapons useable materials from the growth and dissemination of nuclear power industries'.³⁴ Kissinger subsequently evoked the threat of nuclear terrorism, pointing towards 'the possibilities of sabotage, plutonium contamination threats, and armed attacks (for example by terrorists) along with the nuclear device threat'.³⁵

International Atomic Energy Agency (IAEA) Information Circular 225 (INFCIRC/225)

The first IAEA report relating to nuclear security governance was a 1972 booklet titled, 'Recommendations for the Physical Protection of Nuclear Material'. This booklet drew on insights generated by a panel of experts convened by the IAEA Director General earlier in 1972 and laid the ground for subsequent attempts to establish regulations in the area.³⁶ Three years later the text of the booklet was peer-reviewed by another expert group and published as a 1975 IAEA guidance document, 'Information Circular 225 (INFCIRC/225) – The Physical Protection of Nuclear Material'.³⁷ This document advised states on their responsibility to protect and control radioactive materials of potential use to terrorist groups.

The United States had played an important role in encouraging IAEA efforts to develop guidelines aimed at securing nuclear materials and countering the threat of nuclear terrorism. According to a June 1974 US National Security Decision Memorandum, a satisfactory response to the threat required 'establishing agreed international guidelines, preferably based on US practice, to ensure the physical security of weapons useable and highly toxic materials whether internationally transferred or indigenously produced'.³⁸

INFCIRC/225 was not a formal set of regulations, it was a 'best practice' document offering a series of recommendations. Consequently, vast differences remained across states in terms of how physical protection measures were implemented. While INFCIRC/225 was not legally binding it did play an important role in laying the foundations for subsequent nuclear security efforts. Indeed, INFCIRC/225 became the basis for material categorization and levels of protection detailed in the Nuclear Supplier Group (NSG) guidelines and the Convention for the Physical Protection of Nuclear Material (CPPNM).³⁹

Since its publication in 1975, INFCIRC/225 has been revised on five separate occasions.⁴⁰ The revisions to the original document reflect both changes in threat perceptions regarding the security of nuclear materials, and a concerted effort to maintain coherence across a rapidly changing policy landscape. Revisions to INFCIRC/225 have attempted to keep the recommendations aligned with the provisions of various relevant nuclear security conventions and agreements. The first two rounds of revisions occurred before 1990 when the nascent nuclear security framework was still beginning to gather momentum.⁴¹

INFCIRC/225/Rev.1 (1977): The first revision was published two years after the original version. There were no major amendments or additions to the original text just some relatively minor updates.

INFCIRC/225/Rev.2 (1989): The first significant changes were made on the advice of a Technical Committee on Physical Protection of Nuclear Material, which met in April-May 1989. The committee met to advise on the need to update the recommendations contained in INFCIRC/225/Rev.1 and to make additional changes as considered necessary. The Technical Committee flagged a number of changes mainly reflecting: 'the international consensus established in respect of the Convention on the Physical Protection of Nuclear Material (signed in 1980); the experience gained [in implementing INFCIRC/225/Rev.1] since 1977; and a desire to give equal treatment to protection against the theft of nuclear materials and protection against the sabotage of nuclear facilities.'⁴²

Convention on Physical Protection of Nuclear Material (CPPNM)

With the growing international importance being accorded to safeguarding nuclear materials and facilities in the 1970s came a perceived need to go beyond the establishment of 'best practice' guidelines captured in INFCIRC/225. To this end, then US Secretary of State Henry Kissinger appeared at the United Nations in 1974 and proposed the negotiation of a new convention designed to establish international standards for the physical security of nuclear materials.⁴³ The importance of physical protection also featured in the final declaration of the Review Conference of the Parties to the Nuclear Non-Proliferation Treaty (NPT) in Geneva on 30 May 1975. The declaration recognised the need to effectively protect nuclear materials at all times and urged action for the 'physical protection of nuclear material in use, storage and transit...with a view to insuring a uniform, minimum level of effective protection for such material'.⁴⁴

At the IAEA General Conference in September 1975, the need for improved physical protection of nuclear materials and facilities was raised once again. A resolution (GC/XIX/RES/328) called upon IAEA Member States and the Director General 'to consider ways and means of facilitating international co-operation in dealing further with problems of physical protection of nuclear facilities and materials which are common to Member States'.⁴⁵

A team of experts was subsequently formed to explore how greater international cooperation could be made possible. The Advisory Group on Physical Protection of Nuclear Material met in February 1977 and recommended the conclusion of international agreements or conventions on cooperation among states, particularly in terms of the

protection of nuclear material in international transport. The group suggested that the Director General of the IAEA 'consider, in consultation with Member States as appropriate, the initiation of a process for the preparation of an international convention on the physical protection of nuclear materials'.⁴⁶ A draft text was prepared by the US government titled, 'Draft Convention on Physical Protection of Nuclear Facilities, Material and Transports' and circulated by the Director General in June 1977.⁴⁷

Discussions over the text of the proposed convention lasted almost two years and involved representatives of 58 States and the European Atomic Energy Community. The final agreement, the Convention on the Physical Protection of Nuclear Material (CPPNM), was signed in Vienna and New York on 3 March 1980. It constituted 'the first multilateral agreement in the area of physical protection of nuclear material'.⁴⁸

While the CPPNM represented a major milestone in the evolution of the nuclear security framework, it should be noted that the agreed convention was a diluted form of the resolution put forward at the 1975 General Conference. Originally conceived to be wide-ranging with provisions for all non-military nuclear material, associated facilities and transports, the convention was narrowed to cover just civil nuclear material in international transit. British officials summarised the provisions of the agreement at the time where each signatory would: ensure that nuclear material was protected to specified levels while in international transit; only import or export material with such assurances; cooperate to retrieve any stolen materials; and criminalise the theft of nuclear materials under domestic law.⁴⁹

Despite this setback the CPPNM provided a baseline guide for the physical protection of nuclear materials and facilities. The Convention entered into force on 8 February 1987 and remains the 'only international legally binding undertaking in the area of physical protection of nuclear material'.⁵⁰ The CPPNM was also closely linked to INFCIRC/225. Indeed, the categorisation of material and level of protection required by the CPPNM were based on the guidelines set out in INFCIRC/225, although in a slightly amended form. In this respect, INFCIRC/225 and the CPPNM had a symbiotic relationship. As noted above, the entry into force of the CPPNM prompted a revision of INFCIRC/225 as the international community sought to maintain coherence between these two instruments.

In combination INFCIRC/225 and the CPPNM represented a significant improvement in the physical protection of civilian nuclear materials in transit – the convention required signatory states to protect nuclear material to a certain standard and INFCIRC/225 provided the necessary set of prescriptive recommendations against which states could be judged.⁵¹ However, in order to gain consensus, the guidance was necessarily broad and non-specific, allowing states to develop their own national physical protection systems. This meant that the coverage of these measures was limited. Another challenge to the effective implementation of INFCIRC/225 and the CPPNM was that no verification mechanism existed to ensure that the standards set out in these documents were met. On balance, though, INFCIRC/225 and the CPPNM provided the first and only set of norms for the security of civilian nuclear materials in transit. The two documents formed the cornerstone of the nascent nuclear security framework and constituted 'the origins of nuclear security's normative genesis'.⁵²

Post Cold War Developments

The end of the Cold War brought a range of new challenges in the context of nuclear security. The collapse of the Soviet Union 'raised alarming questions about the fate of the Soviet nuclear arsenal'.⁵³ Prior to its collapse, the Soviet Union had in excess of 27,000 nuclear weapons and 'enough weapons-grade plutonium and uranium to triple that number'.⁵⁴ In 1991, it is believed that 'some 15,000-30,000 tactical nuclear

weapons were stationed in 14 of the Soviet Union's 15 constituent republics'.⁵⁵

The dissolution of the Soviet Union left behind a sprawling complex of nuclear facilities that had produced and stored nuclear materials for both civilian and military purposes. The changing economic and political situation meant that much of this infrastructure became obsolete and fears grew of reduced standards of physical protection and facilities being neglected. Furthermore, international borders were relatively porous which meant that if the problem was not contained, stolen nuclear material could quickly be moved elsewhere. Inevitably, then, there were fears of 'loose nukes', that is to say the potential for 'nuclear weapons, or the material or technology to make them could find their way to a nuclear black market' and into the hands of terrorists.⁵⁶

Recognition of this perceived threat in the United States came in the form of the Soviet Nuclear Threat Reduction Act of 1991, widely known as the 'Nunn-Lugar program' after its principal congressional sponsors, Senators Sam Nunn and Richard Lugar. The Nunn-Lugar programme supported 'initiatives designed to offer technical assistance to the Soviet Union (soon to be the Soviet successor states) directed toward the safe and secure transportation and dismantlement of nuclear weapons and their delivery systems, and toward the implementation of other important arms control and non-proliferation objectives'.⁵⁷ The American response took the form of threat reduction and non-proliferation assistance. Although often referred to as 'Cooperative Threat Reduction' (CTR), this term represented just one of the 30 or so programmes designed to plug security gaps in the Former Soviet Union. 'CTR' has now become an umbrella term for a range of measures designed to reduce dangers linked to the Soviet Union's arsenal.⁵⁸

Incident and Trafficking Database

Linked to these threat reduction efforts by the US, and in an effort to monitor any incidents of illicit trafficking of sensitive material, the IAEA established the Incident and Trafficking Database (ITDB) in 1995. The ITDB logs reported incidents of illicit trafficking and other unauthorized activities and events involving nuclear and other radioactive material outside of regulatory control. It facilitates the exchange of authoritative information on incidents among States. As of March 2015, 131 States were participating in the ITDB Programme. From January 1993 to December 2014, a total of 2,734 incidents were reported to the database.⁵⁹

INFCIRC/225 Revisions

In parallel with these initiatives, efforts to strengthen measures relevant to the physical protection of nuclear materials continued to evolve. During the 1992 Review Conference of the States Parties to the CPPNM, the participating states 'called on the IAEA for another review of INFCIRC/225 to focus on assuring the consistency of the nuclear material categories within INFCIRC/225 and the [CPPNM]'.⁶⁰

The result of the subsequent review process was the publication of INFCIRC/225/Rev.3. It is worth noting that INFCIRC/225/Rev.3 went beyond the CPPNM in terms of security measures because it incorporated 'a concept of layered or in-depth protection' depending on the category of nuclear material.⁶¹ INFCIRC/225/Rev.3 also set out 'the appropriate regulatory system that states should adopt'.⁶²

To assist states with implementation of INFCIRC/225/Rev.3, the IAEA also published TECDOC-967, which reaffirmed the importance of state sovereignty, but importantly highlighted that heightened physical protection was 'in the interest of all States', and that INFCIRC/225/Rev.3 should be considered the baseline for domestic physical protection systems.⁶³

As the concept and goal of nuclear security continued to gain momentum during the 1990s, another revision to INFCIRC/225 was published in 1999 following a process of

international consultation. INFCIRC/225/Rev.4 incorporated for the first time the concept of the design basis threat (DBT), 'a comprehensive description of the motivation, intentions and capabilities of potential adversaries against which protection systems are designed and evaluated'.⁶⁴ This established a risk management approach to security planning on a state-by-state basis. The DBT identifies what a physical protection system has to protect against, applying a graded approach whereby the most sensitive materials are given most protection.⁶⁵

One development of particular note with INFCIRC/225/Rev.4 was its inclusion of provisions designed to prevent sabotage to nuclear material and, for the first time, to facilities. Around this time, the IAEA also established the International Physical Protection Advisory Service (IPPAS) missions – a form of international peer review and advice – with the aim of facilitating a more standardised approach to the domestic implementation of the provisions of INFCIRC/225/Rev.4.⁶⁶

By the end of the 1990s, the international community had become more aware of the risks associated with nuclear material outside regulatory control, and the concept of nuclear security had gained greater traction. However, the mass casualty terrorist attacks of 11 September 2001 (9/11) subsequently prompted a new wave of policy entrepreneurship in the context of nuclear security.

9/11 and beyond

The 9/11 attacks gave new impetus to concerns regarding the threat of nuclear terrorism. AQ had proven its ability to circumvent security measures to launch multiple and simultaneous mass-casualty attacks against the continental United States. This episode profoundly influenced perceptions of the evolving security landscape both in the United States and elsewhere. From this point on, 'the potential acquisition and use by terrorist groups of CBRN materials and weapons [...] came to be perceived as a much increased threat'.⁶⁷ This prompted a surge in nuclear security-related policy making at the international level through a diverse range of initiatives and programmes.

Established WMD-related supplier groups -- the Australia Group, the Nuclear Suppliers Group and the Missile Technology Control Regime -- adjusted their control lists and adopted language aimed at preventing terrorist acquisition of WMD-related materials.⁶⁸

Other organisations and groupings -- the UN Security Council, the G8 and the IAEA -- also engaged in a concerted drive to establish new, and to bolster existing, multilateral initiatives to strengthen nuclear security. Many initiatives developed in parallel with significant overlap in terms of drivers and sponsors. The key initiatives are outlined below in chronological order.

UN Security Council Resolution 1373 (UNSCR 1373)

In response to the events of 9/11 the UN Security Council convened for less than five minutes on 28 September 2001 to pass unprecedented measures related to counter-terrorism under Resolution 1373. The Resolution expressed the Security Council's deep concern at 'the increase, in various regions of the world, of acts of terrorism motivated by intolerance or extremism', and reaffirmed 'the need to combat by all means, in accordance with the Charter of the United Nations, threats to international peace and security caused by terrorist acts'.⁶⁹

Resolution 1373 was unanimously adopted by the 15 members of the Security Council and, significantly, constituted a 'legislative resolution that, for the first time in the Security Council's history, used binding authority under Chapter VII of the UN Charter to require all Member States to change their domestic laws in very specific ways'.⁷⁰ The resolution was a direct response to the events of 9/11 and represented an important milestone in efforts to counter terrorism, both in the nuclear context and beyond.

Specifically related to nuclear security, 1373 'notes with concern the close connection between international terrorism and transnational organized crime, illicit drugs, money-laundering, illegal arms-trafficking, and illegal movement of nuclear, chemical, biological and other potentially deadly materials, and in this regard *emphasizes* the need to enhance coordination of efforts on national, subregional, regional and international levels in order to strengthen a global response to this serious challenge and threat to international security'.⁷¹

IAEA Nuclear Security Plan and Nuclear Security Fund

The attacks of 9/11 also served as a catalyst for additional action by the IAEA. In March 2002, the Agency 'embarked on its first comprehensive programme to combat the risk of nuclear terrorism by assisting States in strengthening their nuclear security'.⁷² The IAEA Board of Governors (GOV/2002/10) approved the Agency's first three-year Nuclear Security Plan (NSP).⁷³ The NSP included eight activity areas:

1. Physical protection of nuclear material and nuclear facilities;
2. Detection of malicious activities (such as illicit trafficking) involving nuclear and other radioactive materials;
3. Strengthening of State systems for nuclear material accountancy and control;
4. Security of radioactive sources;
5. Assessment of safety and security related vulnerabilities at nuclear facilities;
6. Response to malicious acts or threats thereof;
7. Adherence to international agreements and guidelines; and
8. Coordination and information management for nuclear security related matters.

The achievements of the first Nuclear Security Plan were reported periodically to the Board of Governors and the IAEA General Conference. The Nuclear Security Plan has since been renewed and updated every three years and represents a core element of the IAEA nuclear security (and safety) programme.⁷⁴

The Board of Governors also approved the creation of a voluntary funding mechanism - the Nuclear Security Fund (NSF) - in March 2002.⁷⁵ The fund was designed to 'support, amongst others things, the implementation of nuclear security activities to prevent, detect and respond to nuclear terrorism', and member states were called on to make contributions to the NSF.⁷⁶

G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction

Beyond the IAEA and Security Council, the administration of George W. Bush devoted considerable resources to advancing international efforts to counter the threat of nuclear and other forms of WMD terrorism. To this end, the United States pressed its 'fellow G8 governments to establish a new initiative through which to collaborate on threat reduction, and to jointly commit a substantial amount of funding and technical expertise to implement projects in line with an agreed set of priorities'.⁷⁷ The new initiative was named the Global Partnership (GP) Against the Spread of Weapons and Materials of Mass Destruction.

Launched in 2002 at the G8 summit in Kananaskis, Canada, the GP was envisaged as a 10-year initiative 'to prevent terrorists or states that support them from acquiring or developing weapons of mass destruction (WMD)'.⁷⁸ With encouragement from the United States, the G8 states collectively pledged \$20 billion 'to address the CBRN legacy challenge in the period up to 2012'.⁷⁹ Not surprisingly, the United States was the principal financial sponsor, committing \$10 billion to the initiative based on its existing \$1 billion per annum threat reduction programmes. The remaining \$10 billion was to be provided by a combination of G8 partner

countries and other states that subsequently joined the initiative. The GP subsequently expanded to include 28 countries plus the EU. Potential members were offered a 'range of financing options, including the option of bilateral debt for program exchanges'.⁸⁰ As a response to the Russian involvement in the conflict in Ukraine, in March 2014 G-7 leaders decided to suspend the Russian Federation from the G-8 group⁸¹. Since then, Russia stopped participating in any G-8 affiliated partnership programs like the GP.⁸²

The GP was unprecedented in terms of scale and funding. While previous threat reduction efforts had been undertaken by the United States, the EU and some European countries, this initiative was the first time that so many countries had engaged in such an extensive collaboration around non-proliferation and security issues.⁸³ The ambitious scope of the initiative highlighted the significance attached to the threat of CBRN terrorism. Moreover, the duration of the GP recognised the need for a long-term approach to addressing the security challenges at hand; 'many threat reduction projects would take time to deliver, given the requirement to build new infrastructure or to enhance security culture and practices in particular countries'.⁸⁴

Building on pre 9/11 threat reduction efforts, the initial focus of the GP was on Russia and the other former Soviet republics because of the considerable inventory of CBRN related weapons and materials located there. In more general terms, however, the GP called on all states to commit to six principles⁸⁵:

1. Promote the adoption, universalisation, full implementation and, where necessary, strengthening of multilateral treaties and other international instruments whose aim is to prevent the proliferation or illicit acquisition of such items; strengthen the institutions designed to implement these instruments.
2. Develop and maintain appropriate effective measures to account for and secure such items in production, use, storage and domestic and international transport; provide assistance to states lacking sufficient resources to account for and secure these items.
3. Develop and maintain appropriate effective physical protection measures applied to facilities which house such items, including defence in depth; provide assistance to states lacking sufficient resources to protect their facilities.
4. Develop and maintain effective border controls, law enforcement efforts and international cooperation to detect, deter and interdict in cases of illicit trafficking in such items, for example through installation of detection systems, training of customs and law enforcement personnel and cooperation in tracking these items; provide assistance to states lacking sufficient expertise or resources to strengthen their capacity to detect, deter and interdict in cases of illicit trafficking in these items.
5. Develop, review and maintain effective national export and transshipment controls over items on multilateral export control lists, as well as items that are not identified on such lists but which may nevertheless contribute to the development, production or use of nuclear, chemical and biological weapons and missiles, with particular consideration of end-user, catch-all and brokering aspects; provide assistance to states lacking the legal and regulatory infrastructure, implementation experience and/or resources to develop their export and transshipment control systems in this regard.
6. Adopt and strengthen efforts to manage and dispose of stocks of fissile materials designated as no longer required for defence purposes, eliminate all chemical weapons, and minimize holdings of dangerous biological pathogens and toxins, based on the recognition that the

threat of terrorist acquisition is reduced as the overall quantity of such items is reduced.

From 2004 the GP states also adopted as a priority the implementation of UN Security Council Resolution 1540, another milestone in the evolution of the broader nuclear security framework. The GP was subsequently renewed beyond the original 10-year mandate at the 2011 G8 summit in Deauville, France. As part of the renewal process, four priority areas were set out:

- Securing nuclear and radiological materials;
- Biological security;
- Engagement with scientists working in the field of WMD;
- Implementation of 1540.

UN Security Council Resolution 1540 (UNSCR 1540)

If the events of 9/11 gave new momentum to fears regarding nuclear terrorism, these fears were compounded by subsequent terrorist attacks and 'proclamations regarding the intent to acquire WMD by groups such as Al Qaeda'.⁸⁶ Moreover, these claims no longer seemed far-fetched in light of 'revelations regarding the spread of WMD through clandestine networks, such as that of Abdul Qadeer Khan'.⁸⁷ The A.Q. Khan proliferation network 'highlighted the multiple roles played by non-state actors in WMD proliferation: they may be the recipients as well as the suppliers of such weapons and technologies'.⁸⁸ However, 'the traditional international WMD non-proliferation regime was not formed to address these types of proliferation considerations'⁸⁹, and it became clear that there was a need for a new means of tackling the threat of WMD terrorism. In this context, the Security Council unanimously adopted Resolution 1540 in April 2004. It was a comprehensive resolution imposing 'binding obligations on all States to adopt legislation to prevent the proliferation of nuclear, chemical and biological weapons, and their means of delivery, and establish appropriate domestic controls over related materials to prevent their illicit trafficking'.⁹⁰ Resolution 1540 was adopted under Chapter VII of the UN Charter and so 'establishes the proliferation and possession of WMD by non-state actors as "a threat to international peace and security"'.⁹¹

Resolution 1540 requires that states adopt appropriate measures to ensure the security of WMD and related materials in areas such as physical protection, transport, border controls, export and transshipment controls. However, the implementation of UNSCR 1540 is hindered by a number of factors. This includes the weak mandate of the 1540 Committee, established to oversee the resolution's implementation. Due to the absence of verification or effective enforcement provisions in UNSCR 1540, the Committee lacks the authority to carry out an effective oversight role, instead having to assess progress through voluntary reporting by States, which is often conducted inconsistently.⁹² The implementation of UNSCR 1540 is also hampered by a perceived lack of legitimacy on the part of some non-Security Council members, due to the fact that its mandate was introduced by the Security Council rather than as a UN General Assembly resolution.⁹³

Nevertheless, 1540 does much to mitigate the threat of non-state actors acquiring WMD or the means to develop them and has become a cornerstone of nuclear security efforts.

Code of Conduct on the Safety and Security of Radioactive Sources

The security of radioactive sources was another aspect of nuclear security that gained momentum in the post 9/11 environment. The 'International Conference on the Safety of Radiation Sources and Security of Radioactive Materials' held in France in September 1998 had raised awareness of the need to secure radioactive sources and the issue was taken up by the IAEA in its 'Action Plan for the Safety of

Radioactive Sources and security of Radioactive Materials' the following year. The proposals set out in this Action Plan formed the genesis of the subsequent 'Code of Conduct on the Safety and Security of Radioactive Sources'.⁹⁴

In September 2000, 'the Board of Governors took note of the Code, and the General Conference invited IAEA Member States to take note of it and to consider, as appropriate, means of ensuring its wide application'.⁹⁵ A first version of the Code (IAEA/CODEOC/2001) was published in March 2001 with a revised version approved by the IAEA Board of Governors in September 2003.⁹⁶ This revision reflected findings from the International Conference on Security of Radioactive Sources held in Vienna in March 2003 (the Hofburg Conference). This conference highlighted post 9/11 concerns surrounding 'misplaced, forgotten, lost or insecurely stored' radioactive sources as well as those that have never been subject to regulatory control.⁹⁷ The conference specifically highlighted the need 'for an international initiative designed to facilitate the locating, recovering and securing of 'orphan' radioactive sources and the importance of effective national infrastructures for the safe and secure management of vulnerable and dangerous radioactive sources'.⁹⁸ The Code received significant attention and the international community was encouraged to embrace the code at the G8 annual summit held in France in 2003.

The most recent version of the Code was published in January 2004. The IAEA has developed practical guidance for member states wishing to comply with the Code. In this regard, the IAEA Board of Governors approved 'Guidance on the Import and Export of Radioactive Sources' in September 2004 and updated the supplementary guidance in 2012.⁹⁹ Moreover, the IAEA General Conference welcomed the Board's approval in resolution GC(48)/RES/10.D, which 'endorsed the Guidance while recognizing that it is not legally binding, [and] encouraged States to act in accordance with the Guidance on a harmonized basis and to notify the Director General of their intention to do so'.¹⁰⁰

The Code provides guidance on necessary measures to protect against the harmful effects of accidents or malicious acts involving radioactive sources. Divided into three parts, the Code provides definitions of key terms, explains its objectives, and provides guidance in several areas. These include:

- general matters;
- legislation and regulations;
- regulatory body;
- import and export of radioactive sources;
- role of the IAEA;
- dissemination of the Code.¹⁰¹

An annex also categorises radioactive sources based on their radiation effects should they be involved in an accident or malicious incident.

Amendment to the CPPNM

In a rapidly evolving nuclear security context, there was a need to update existing measures to reflect new developments in the field. To this end, States Parties to the Convention on the Physical Protection of Nuclear Material (CPPNM) adopted by consensus an Amendment to the convention on 8 July 2005.

The Amendment broadened the scope of obligations set out under the original text of the CPPNM. While the obligations for physical protection under the Convention covered nuclear material during international transport, the Amendment made it a legal obligation for States Parties to protect nuclear facilities and material in peaceful domestic use, storage and transport. It also provided for expanded cooperation between and among States regarding rapid measures to locate and recover stolen or smuggled nuclear material, mitigate any radiological consequences of sabotage, and prevent and combat related offences.¹⁰²

The 2005 Amendment thus called on states to 'establish, implement and maintain an appropriate physical protection regime with the aim of protecting against theft or other unlawful taking of covered materials, ensuring implementation of rapid measures to recover missing or stolen material, protecting facilities and material from sabotage, and mitigating or minimising radiological consequences of sabotage'.¹⁰³ According to the Amendment, once a suitable legislative framework has been established, it is to be implemented by a responsible national authority.

Despite its adoption, however, the Amendment to the CPPNM has not yet entered into force, which requires the approval of two thirds of states parties to the Convention. At the time of writing, the amendment has 89 contracting states, 13 signatures short of entry into force.¹⁰⁴

International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT)

Another significant milestone in the evolution of the nuclear security framework came with the introduction of the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT). Designed to criminalise acts of nuclear terrorism and to encourage international coordination to prevent, investigate and punish such acts, ICSANT had its roots in debates during the 1990s.¹⁰⁵ The sarin attacks in Japan in 1995 prompted policy-makers to explore additional methods of deterring and punishing terrorist activities. With the international focus then primarily on strengthening non-proliferation measures, there was a perceived need to make acts of nuclear terrorism punishable by law.

The UN had already attempted to address the issue of conventional terrorism through multilateral treaties. In 1996, the UN General Assembly established an *ad hoc* committee to draft an international convention for the suppression of terrorist bombings. This work resulted in the Convention for the Suppression of Terrorist Bombings, adopted by the General Assembly at its 52nd session (resolution 52/164 of 15 December 1997). It was also in the context of this committee that the first draft of ICSANT, proposed by Russia in 1998, was debated.¹⁰⁶

Negotiations over the Convention were protracted, not least because it was feared the new convention would undermine existing policies and create overlapping or parallel regimes. In this context, many felt that it would be preferable to strengthen the CPPNM by enlarging its membership and strengthening its application by the pre-existing base.¹⁰⁷

A protocol to the CPPNM was viewed by many as the pragmatic approach to take because it would avoid 'parallel and mutually incompatible regimes'.¹⁰⁸ The United States was particularly wary of trying not to 'inadvertently undercut or compromise existing international instruments'.¹⁰⁹ However, other states, led by Russia, felt that the existing legislation was insufficient and unable to prevent nuclear terrorism in all its manifestations. The CPPNM covered 'only one area of the machinery for combating the criminal use of nuclear material, namely, preventing nuclear components from getting out of the possession of State bodies'.¹¹⁰

In the wake of 9/11 the issue was infused with a greater sense of urgency and the Russian perspective gained additional support. The Convention was finally signed in 2005 and entered into force in 2007. At the time of writing it has 115 signatories and 100 states parties.¹¹¹

While earlier conventions only applied to nuclear material being transported internationally, or being used, stored or transported in a given State, ICSANT was seen as an important measure to plug gaps in the existing architecture. By incorporating 'the broadest possible definition of terrorist acts related to the use, or threat of use, of nuclear components' the convention was designed to counter threats to use nuclear materials by individuals or organizations, regardless of the target.¹¹²

The convention requires States Parties to make certain acts criminal offences in national law, to establish jurisdiction over such offenses, to prosecute or extradite persons alleged to have committed the defined criminal offences, and to engage in cooperation and mutual legal assistance with respect to objectives of the Convention.¹¹³

Global Initiative to Combat Nuclear Terrorism (GICNT)

By the mid-2000s, the nuclear security framework had evolved over three decades into a complex web of conventions and initiatives. On 15 July 2006 a new initiative - the Global Initiative to Combat Nuclear Terrorism (GICNT) - was announced by Russia and the United States. GICNT reflected a perceived need on the part of some for an overarching initiative that would focus efforts and raise international awareness of the various elements of the now elaborate nuclear security architecture. GICNT was described as a partnership of likeminded nations to 'expand and accelerate efforts that develop partnership capacity to combat nuclear terrorism on a determined and systematic basis'.¹¹⁴

GICNT currently has 86 partner countries and 5 official observers - the IAEA, the European Union (EU), the International Criminal Police Organization (INTERPOL), the United Nations Office on Drugs and Crime (UNODC) and the United Nations Interregional Crime and Justice Research Institute (UNICRI).¹¹⁵ It calls on those states concerned to commit to voluntarily implementing existing nuclear security-related legislation to suppress and mitigate acts of nuclear terrorism. GICNT's principles include:

1. Develop, if necessary, and improve accounting, control and physical protection systems for nuclear and other radioactive materials and substances;
2. Enhance security of civilian nuclear facilities;
3. Improve the ability to detect nuclear and other radioactive materials and substances in order to prevent illicit trafficking in such materials and substances, to include cooperation in the research and development of national detection capabilities that would be interoperable;
4. Improve capabilities of participants to search for, confiscate, and establish safe control over unlawfully held nuclear or other radioactive materials and substances or devices using them;
5. Prevent the provision of safe haven to terrorists and financial or economic resources to terrorists seeking to acquire or use nuclear and other radioactive materials and substances;
6. Ensure adequate respective national legal and regulatory frameworks sufficient to provide for the implementation of appropriate criminal and, if applicable, civil liability for terrorists and those who facilitate acts of nuclear terrorism;
7. Improve capabilities of participants for response, mitigation, and investigation, in cases of terrorist attacks involving the use of nuclear and other radioactive materials and substances, including the development of technical means to identify nuclear and other radioactive materials and substances that are, or may be, involved in the incident; and
8. Promote information sharing pertaining to the suppression of acts of nuclear terrorism and their facilitation, taking appropriate measures consistent with their national law and international obligations to protect the confidentiality of any information which they exchange in confidence.¹¹⁶

It should be noted that 'GICNT is not a formal institution, nor is it a treaty organisation, and there is no administrative secretariat or country subscriptions. Instead it aims to build on wider efforts by the international community to meet the threat of nuclear terrorism'.¹¹⁷

INFCIRC/225/Rev.5 (2011)

In 2011, the IAEA published a fifth revision of INFCIRC/225. This was 'an evolutionary, not revolutionary' update intended to harmonise INFCIRC/225 with the Amendment to the CPPNM and other guidance documents within the IAEA's Nuclear Security Series, and to reflect the new post-9/11 threat environment.¹¹⁸ Although changes incorporated in this version were not as significant as those made in previous versions, INFCIRC/225/Rev.5 included revised guidance on how to categorise self-protecting nuclear material when applying physical protection measures, due to the fact that adversaries may be willing to receive damaging or even lethal doses of radiation in order to accomplish their mission. INFCIRC/225/Rev.5 also placed greater emphasis on the use of rigorous performance testing for physical protection systems including 'force-on-force' exercises.¹¹⁹

(3) Nuclear Security Summit Process

This section provides an overview of the evolution and main outcomes of the NSS process to date with a brief consideration of the future of the process. It has been noted that the NSS process has 'brought an unprecedented level of attention to nuclear material security and helped solidify international consensus around strengthening its structures'.¹²⁰

Origins

The origins of the NSS process can be traced to 5 April 2009 and US President Barack Obama's Prague speech during which he laid out an ambitious vision to stop the proliferation of nuclear weapons, to reduce the size of existing arsenals and to secure nuclear materials. As part of his vision he noted that terrorists were 'determined to buy, build or steal' a nuclear weapon and that this represented 'the most immediate and extreme threat to global security'.¹²¹ The President further noted that, 'One terrorist with one nuclear weapon could unleash massive destruction. Al Qaeda has said it seeks a bomb and that it would have no problem with using it. And we know that there is unsecured nuclear material across the globe. To protect our people, we must act with a sense of purpose without delay'.¹²² In October 2009, US Secretary of State Hillary Clinton subsequently argued that, 'a nuclear terrorist bomb detonated anywhere in the world would have vast economic, political, ecological and social consequences everywhere in the world'.¹²³

The Obama administration's assessment of the seriousness of the threat in Prague was accompanied by the announcement of measures designed to combat nuclear terrorism. This included 'a new international effort to secure all vulnerable nuclear material around the world within four years', and President Obama's announcement that, 'we should start by having a Global Summit on Nuclear Security that the United States will host within the next year'.¹²⁴ Speaking at the G8 Summit in L'Aquila, Italy, on 10 July 2009 he later noted that the participants invited to the upcoming 'Global Nuclear Summit' would 'discuss steps we can take to secure loose nuclear materials; combat smuggling; and deter, detect, and disrupt attempts at nuclear terrorism'.¹²⁵

In the run-up to the summit the Obama administration, and the UK government of Prime Minister Gordon Brown, briefly sought to promote nuclear security as a 'fourth pillar' of the international nuclear framework. In July 2009, the Brown government argued, in *The road to 2010*, that 'it is vital that nuclear security becomes an integral part of the global nuclear framework—a new, fourth "pillar" of the global agenda', alongside the three pillars of peaceful use, non-proliferation and disarmament codified in the NPT.¹²⁶ In October 2009, US Secretary of State Hillary Clinton similarly argued that in addition to the original three pillars 'we should add a fourth: preventing nuclear terrorism. Stopping terrorists from acquiring the ultimate weapon was not a central preoccupation when the NPT was negotiated, but today, it is, and it must remain at the top of our national security priorities'.¹²⁷ However, objections from many countries to the

term 'fourth pillar' resulted in the US and UK governments dropping it from use by the end of 2009. The objections were primarily based on the term's perceived incompatibility with the existing pillars of the NPT, and opposition to any additional formal obligations being imposed on the peaceful use of nuclear energy. In the run-up to the NSS in April 2010 an emphasis was placed instead on national responsibility and the centrality of the IAEA in providing assistance to states when requested to do so by governments.

NSS 2010

The inaugural NSS was held on 12-13 April 2010 in Washington, DC. An official press release from the Obama administration noted that, 'Just as the United States is not the only country that would suffer from nuclear terrorism, we cannot prevent it on our own. The Nuclear Security Summit highlights the global threat posed by nuclear terrorism and the need to work together to secure nuclear material and prevent illicit nuclear trafficking and nuclear terrorism'.¹²⁸

The summit was the largest gathering of world leaders in the city since the UN Conference on International Organization in 1945 with 47 invited countries in attendance, and 38 of these represented by heads of state or government. Participating countries included: Algeria, Argentina, Armenia, Australia, Belgium, Brazil, Canada, Chile, China, Czech Republic, Egypt, Finland, France, Georgia, Germany, India, Indonesia, Israel, Italy, Japan, Jordan, Kazakhstan, Republic of Korea, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Philippines, Poland, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States and Vietnam.

Three heads of international organisations also represented their institutions including UN Secretary General Ban Ki-moon, IAEA Director General Yukiya Amano and President of the European Council Herman Van Rompuy.

Ahead of the summit each invited state and organization identified a Sherpa to prepare for the participation of their leadership in a series of pre-meetings. Preparatory meetings involved Sherpas or Sous Sherpas and focused on preparing the agenda, the schedule and the documentation for the NSS. During the summit itself the participants addressed four core issues:

- the threat;
- national actions that countries can or have taken to secure nuclear material, prevent nuclear smuggling and generally strengthen provisions for nuclear security;
- the central role of the IAEA in the field;
- measures that countries can take to strengthen the international nuclear security policy architecture.¹²⁹

Communiqué

The summit communiqué laid out a series of broad points of agreement. It began by noting that, 'Nuclear terrorism is one of the most challenging threats to international security, and strong nuclear security measures are the most effective means to prevent terrorists, criminals, or other unauthorized actors from acquiring nuclear materials'.¹³⁰ It also welcomed and endorsed 'President Obama's call to secure all vulnerable nuclear material in four years'. While the seriousness of the threat was recognised, it had not been possible to reach a clear consensus in this area given the many different perspectives represented in the NSS process. The inclusion in the final communiqué of a reference to encouraging efforts to secure non-nuclear radioactive materials illustrated that some participants viewed securing these as a greater priority than securing vulnerable nuclear material.

The communiqué further stated that, 'maintaining effective nuclear security will require continuous national efforts

facilitated by international cooperation' but emphasised this would be 'undertaken on a voluntary basis by States' and would require 'dialogue and cooperation with all states'. In recognition of the sensitivities associated with protecting the rights of non-nuclear weapon states under the NPT, the participants also emphasised their support for 'the implementation of strong nuclear security practices that will not infringe upon the rights of States to develop and utilize nuclear energy for peaceful purposes and technology and will facilitate international cooperation in the field of nuclear security'.

The primacy of state responsibility in providing for effective nuclear security was highlighted. An emphasis was placed on the responsibility of states to secure all nuclear materials and facilities under their control, including military designated, as well as to prevent access by non-state actors to information or technology that could enable nuclear materials to be used malignly. Highly enriched uranium and separated plutonium were singled out as requiring special precautions and the communiqué encouraged 'the conversion of reactors from highly enriched to low enriched uranium fuel and minimization of use of highly enriched uranium, where technically and economically feasible'.

The two key conventions – CPPNM as amended and ICSANT – were singled out as 'essential elements of "the global nuclear security architecture"', and an emphasis was placed on 'the essential role of the International Atomic Energy Agency in the international nuclear security framework'. In this latter regard the communiqué stated that the participants 'will work to ensure that it continues to have the appropriate structure, resources and expertise needed to carry out its mandated nuclear security activities in accordance with its Statute, relevant General Conference resolutions and its Nuclear Security Plans'. The role and contributions of the UN, GICNT and GP were recognised, as well as the requirement for capacity building at multiple levels – bilateral, regional and multilateral – and advancing nuclear security culture through training, education and technology development.

The requirement for coordinated international cooperation and assistance between countries was recognised in several areas including: the prevention and response to illicit nuclear trafficking; and sharing information and expertise 'through bilateral and multilateral mechanisms in relevant areas such as nuclear detection, forensics, law enforcement, and the development of new technologies'. The communiqué also recognised the need to work with industry and the private sector to 'ensure the necessary priority of physical protection, material accountancy, and security culture'.¹³¹

Work Plan

The communiqué was accompanied by a Work Plan to serve 'as guidance for national and international action including through cooperation within the context of relevant international fora and organizations'.¹³² Through this document the participating states made a political commitment to 'carry out, on a voluntary basis, applicable portions of this Work Plan, consistent with respective national laws and international obligations, in all aspects of the storage, use, transportation and disposal of nuclear materials and in preventing non-state actors from obtaining the information required to use such material for malicious purposes' (see Part II of the NSBB for the full Work Plan). Among other things, specific mention was made in the Work Plan to:

- the importance of universalising and effectively implementing ICSANT and CPPNM (plus the 2005 Amendment);
- the need to fully implement UNSCR 1540 and to support the work of the 1540 committee;
- the role of the IAEA in supporting national efforts to enhance nuclear security through its Nuclear Security Programme, the Nuclear Security Plan 2010-13, the Nuclear Security Series of guidance documents, the

revised INFCIRC/225, state specific Integrated Nuclear Security Support Plans, and the International Physical Protection Advisory Service;

- the contributions of the UN, GICNT, the GP and other bilateral, regional, multilateral and non-governmental activities to promoting nuclear security;
- expanding where appropriate participation in international initiatives and voluntary cooperative mechanisms designed to enhance nuclear security;
- the rights of states to use nuclear energy for civil purposes and their responsibility for managing all nuclear materials and associated facilities under their jurisdiction;
- the particularly sensitive nature of, and the requirement for special precautions for, HEU and separated Pu;
- consolidating national sites where nuclear material is held where appropriate;
- exercising care for the safe and secure transport of nuclear materials domestically and internationally;
- removing and disposing nuclear materials from facilities no longer using them where appropriate;
- exercising care in securing and accounting for separated plutonium, taking into consideration the potential of various forms for use in a nuclear explosive device;
- considering the conversion of HEU-fuelled research reactors, and other HEU nuclear facilities, to LEU where technically and economically feasible;
- participating states providing assistance to others when requested to secure, account for, consolidate, and convert nuclear materials;
- participating states consider how to best address the security of radioactive sources;
- participating states establishing and maintaining effective national nuclear security regulations, undertaking to maximize regulatory independence, building regulatory capacity, reviewing and enforcing compliance with national nuclear security regulations;
- participating states working with the nuclear industry to promote and sustain strong nuclear security culture and corporate commitment to implement robust security practices, exchanging nuclear security best practices where legally and practically feasible, encouraging nuclear operators and architect/engineering companies to factor in effective measures of physical protection and security culture when planning, constructing and operating civilian nuclear facilities;
- the importance of the human dimension of nuclear security and the need to enhance security culture and to maintain a well-trained cadre of technical experts in part through international cooperation and networking including the nuclear security support centres and education and training;
- participating states encouraging the implementation of national measures to ensure the proper management of sensitive information to prevent illicit acquisition or use of nuclear material;
- developing and applying mechanisms for expanding the sharing of information on issues, challenges, risks and solutions related to nuclear security;
- participating states consider further steps -- nationally, bilaterally or multilaterally -- to enhance technical capabilities, including the appropriate use of new and innovative technologies, to prevent and combat illicit nuclear trafficking; to explore ways to work together to develop national capacities for nuclear forensics; and to enhance broader cooperation among local, national and international customs and law enforcement bodies to prevent illicit nuclear trafficking and acts of nuclear terrorism.

National commitments

In addition to signing up to the communiqué and the Work Plan, many of the participants at the summit made specific commitments ('house gifts'), including national actions to enhance domestic nuclear security arrangements, and working through bilateral and multilateral initiatives to

enhance nuclear security in a global context. The Obama administration described these commitments as providing 'momentum to the effort to secure nuclear materials' and representing 'the sense of urgency that has been galvanized by the nature of the threat and the occasion of the Summit'.¹³³

Examples of the types of national commitments that were made included ratifying ICSANT, contributing to the IAEA Nuclear Security Fund, removing HEU, creating nuclear security education and training centres and joining GICNT. Some of the participating states outlined their commitments in National Statements (see Part II for the summit's Highlights of National Commitments).

Next steps

To judge progress in implementing the 2010 Work Plan and national commitments, and to provide an opportunity for additional measures to be taken by participating states, including actions related to the four-year lockdown plan, it was agreed a second NSS would be held in 2012.¹³⁴

The summit's communiqué closed noting that the next NSS would be held in the Republic of Korea, where the participants would 'take stock of the post-Washington work and set new goals for nuclear security'.¹³⁵ Participants also agreed to 'reach out to countries' that were 'not able to attend the Washington Summit to explain its goals and outcomes and to expand the dialogue among a wider group'.¹³⁶ A meeting was scheduled for later in 2010 where the Sherpas would 'evaluate progress against Summit goals'.¹³⁷ It is important to note that the NSS process did not establish a formal mechanism for evaluating the implementation of commitments made by the participants with the entire process remaining voluntary.

NSS 2012

A Nuclear Industry Summit and a Nuclear Security Symposium were held immediately prior to the summit in Seoul. For the summit itself on 26-27 March 2012, the original 47 countries plus six new ones (Azerbaijan, Denmark, Gabon, Hungary, Lithuania and Romania) were invited to attend by the Republic of Korea. Interpol was also invited to attend for the first time alongside the UN, IAEA and EU¹³⁸, with the latter represented by the President of the European Council and the President of the European Commission.¹³⁹

Ahead of the summit a series of Sherpa and sous-Sherpa meetings prepared the agenda and summit documentation. During the summit itself the participants addressed three core issues:

- progress since 2010;
- national measures ('gift baskets') and international cooperation to enhance nuclear security, future commitments;
- the nuclear security and safety interface.

While there was some debate prior to the Seoul summit on whether the nuclear security-safety interface should be addressed, the government of the Republic of Korea included it on the agenda as a direct result of the Tsunami-induced nuclear accident at Fukushima Daiichi in nearby Japan the previous year on 11 March 2011.

Communiqué

The summit communiqué noted that nuclear terrorism continued 'to be one of the most challenging threats to international security', a challenge that required 'strong national measures and international cooperation given its potential global political, economic, social, and psychological consequences'.¹⁴⁰ The participants renewed the general political commitments made at the 2010 summit, agreed to 'continue to use the Washington Communiqué and Work Plan as a basis' for future work to advance nuclear security objectives, and stressed the 'fundamental responsibility of

States' for nuclear security. On this latter point the communiqué also recognized 'the fundamental responsibility of States to maintain effective security of other radioactive materials', thereby reflecting the interest of many participating states in this aspect of the agenda. In recognition of the Fukushima Daiichi accident the communiqué noted 'the nexus between nuclear security and nuclear safety' and that 'sustained efforts are required to address the issues of nuclear safety and nuclear security in a coherent manner that will help ensure the safe and secure peaceful uses of nuclear energy'.

The participants agreed to 'make every possible effort to achieve further progress' in 11 key areas. Highlights include (see Part II for the full text of the communiqué):

The Global Nuclear Security Architecture

Here the emphasis was placed on universal adherence to the CPPNM as amended and ICSANT with 2014 identified as a date for bring the CPPNM amendment into force. The extension of the GP beyond 2012 was welcomed as was the IAEA's proposal to hold an international conference on nuclear security in 2013.

Role of the IAEA

The 'essential responsibility and central role of the IAEA in strengthening the international nuclear security framework' was reaffirmed. To assist the IAEA in its nuclear security role the participants encouraged countries 'in a position to do so and the nuclear industry to increase voluntary contributions to the IAEA's Nuclear Security Fund, as well as in-kind contributions'. Encouragement was given to countries to make use of the Agency's resources designed to assist states, on request, to enhance their nuclear security provision.

Nuclear Materials

Countries were encouraged 'to consider the safe, secure and timely removal and disposition of nuclear materials from facilities no longer using them, as appropriate, and consistent with national security considerations and development objectives'. The communiqué encouraged 'measures to minimize the use of HEU, including through the conversion of reactors from highly enriched to low enriched uranium (LEU) fuel, where technically and economically feasible, taking into account the need for assured supplies of medical isotopes', and also encouraged those countries 'in a position to do so, by the end of 2013, to announce voluntary specific actions intended to minimize the use of HEU'. Using LEU fuels and targets in commercial applications such as isotope production was encouraged, and 'relevant international cooperation on high-density LEU fuel to support the conversion of research and test reactors' was welcomed.

Radioactive Sources

Countries were urged to secure radioactive sources and to adopt relevant practices under the CCSSRS and its supplementary document on the IAEA Guidance on the Import and Export of Radioactive Sources, as well as in IAEA Nuclear Security Series documents. The establishment of national registers of high-activity sources was also urged.

Nuclear Security and Safety

The participants affirmed that, 'nuclear security and nuclear safety measures should be designed, implemented and managed in nuclear facilities in a coherent and synergistic manner'. The communiqué welcomed 'the efforts of the IAEA to organize meetings to provide relevant recommendations on the interface between nuclear security and nuclear safety so that neither security nor safety is compromised', and the convening of the High Level Meeting on Nuclear Safety and Security initiated by the UN Secretary-General in September 2011.

Transportation Security

The communiqué committed the participants to 'continue efforts to enhance the security of nuclear and other radioactive materials while in domestic and international transport, and encourage States to share best practices and

cooperate in acquiring the necessary technologies to this end'. Countries were encouraged to set up 'effective national nuclear material inventory management and domestic tracking mechanisms, where required, that enable States to take appropriate measures to recover lost and stolen materials'.

Combating Illicit Trafficking

The communiqué emphasized the need 'to develop national capabilities to prevent, detect, respond to and prosecute illicit nuclear trafficking', and encouraged 'action-oriented coordination among national capacities to combat illicit trafficking, consistent with national laws and regulations'. Participation in the IAEA Illicit Trafficking Database program was encouraged, along with the provision of 'necessary information relating to nuclear and other radioactive materials outside of regulatory control'.

Nuclear Forensics

Countries were encouraged 'to work with one another, as well as with the IAEA, to develop and enhance nuclear forensics capabilities', including 'the development of a common set of definitions and standards', conducting research and sharing information and best practices. The 'importance of international cooperation both in technology and human resource development to advance nuclear forensics' was also emphasized.

Nuclear Security Culture

The sharing of best practices related to the development of nuclear security culture was encouraged through bilateral and multilateral mechanisms. Relevant sectors -- government, regulatory bodies, industry, academia, nongovernmental organizations and the media -- were encouraged 'to fully commit to enhancing security culture and to maintain robust communication and coordination of activities'. Education and training initiatives were encouraged to promote human resource development and in this area the creation of 'Centers of Excellence and other nuclear security training and support centers since the Washington Summit' was welcomed. The establishment of new centres was also encouraged.

Information security

The communiqué recognized 'the importance of preventing non-state actors from obtaining information, technology or expertise required to acquire or use nuclear materials for malicious purposes, or to disrupt information technology based control systems at nuclear facilities'. In addition to encouraging the development of national and facility-level measures for effective sensitive information management, the communiqué stressed the promotion of 'a security culture that emphasizes the need to protect nuclear security related information', engagement 'with scientific, industrial and academic communities in the pursuit of common solutions', and supporting the IAEA to produce and disseminate 'improved guidance on protecting information'.

International Cooperation

Finally, with regard to enhancing physical protection and accounting measures, emergency readiness, 'response capabilities and relevant legal and regulatory framework', the communiqué encouraged 'the international community to increase international cooperation and to provide assistance, upon request, to countries in need on a bilateral, regional, and multilateral level, as appropriate'. The role of the IAEA in this regard was welcomed.

National commitments and joint statements

In Seoul the participants also discussed progress made at the national level and in the context of international cooperation since 2010 based on commitments made at the summit in Washington, DC. Future commitments were also addressed.

The official summit documentation summarised progress and future commitments in the context of both national commitments and a series of joint statements. More than 100

national commitments were made by participating countries at the summit. Moreover, 13 joint statements were made (see Part II for the original texts of commitments officially reported and the joint statements). The joint statements included:

- 2012 NSS Deliverable - Global Partnership;
- Contributions of the GICNT on Enhancing Nuclear Security;
- Joint Statement on Nuclear Terrorism (France, UK, US);
- Joint Statement by the United States, Chile, Poland, Nigeria, Morocco, Thailand, and the Republic of Korea on the Nuclear Security Summit Outreach Efforts;
- Joint Statement of the Presidents of the Republic of Kazakhstan, the Russian Federation and the United States of America Regarding the Trilateral Cooperation at the Former Semipalatinsk Test Site;
- Belgium-France-Netherlands-United States Joint Statement Minimization of HEU and the Reliable Supply of Medical Radioisotopes;
- Joint Statement on Quadrilateral Cooperation on High-density Low enriched Uranium Fuel Production (Belgium, France, the United States and the Republic of Korea);
- Joint Statement on Transport Security (France, the Republic of Korea, the United Kingdom, the United States, and Japan);
- Joint Statement on Nuclear Security Training and Support Centers (Algeria, Australia, Canada, Chile, Czech Republic, Germany, Hungary, Indonesia, Italy, Japan, Jordan, Kazakhstan, Republic of Korea, Lithuania, Malaysia, Mexico, Morocco, Netherlands, Pakistan, Philippines, Ukraine, United Arab Emirates, the United Kingdom, and the United States);
- Joint Statement on National Legislation Implementation Kit on Nuclear Security (Australia, Canada, Czech Republic, Finland, Hungary, Japan, Kazakhstan, Malaysia, Morocco, The Netherlands, New Zealand, Norway, The Philippines, Poland, Republic of Korea, Romania, Singapore, Spain, Sweden, Thailand, Turkey, United Arab Emirates, United Kingdom, United States, and Vietnam);
- Statement of Activity and Cooperation to Counter Nuclear Smuggling (Jordan, Canada, The Czech Republic, Finland, France, Georgia, Hungary, Israel, Italy, Japan, The Republic of Korea, Lithuania, Malaysia, Philippines, Sweden, Turkey, The United Arab Emirates, The United Kingdom and The United States of America);
- Security of radioactive sources (Contribution by the Federal Republic of Germany and co-sponsored by: Australia, Canada, Czech Republic, Denmark, Finland, Hungary, Indonesia, Italy, Japan, Kazakhstan, Republic of Korea, Malaysia, Morocco, New Zealand, Norway, Philippines, Poland, Singapore, Spain, Sweden, Switzerland, Thailand, United Arab Emirates);
- Multinational Statement on Nuclear Information Security (Algeria, Australia, Canada, Chile, Czech Republic, Finland, France, Georgia, Germany, Hungary, Indonesia, Italy, Japan, Kazakhstan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Philippines, Poland, Republic of Korea, Spain, Sweden, Switzerland, Thailand, Turkey, United Arab Emirates, United Kingdom, United States of America, Vietnam)

Progress since 2010

In terms of progress since the 2010 summit participants in Seoul reported on key areas where positive movement had been realised in the intervening two years. Progress in the following areas were noted: (see Part II for the summit's official key facts on progress):

- Removing HEU or Converting HEU to Non-military Use;
- Disposing and Securing Plutonium;
- Converting Research Reactors and Medical Isotope Production Facilities using HEU fuel to LEU fuel;
- Strengthening Nuclear Security-Related International Conventions and Multilateral Initiatives;
- Establishing Centers of Excellence;
- Supporting the Activities of the IAEA;
- Countering the Illicit Trafficking of Nuclear and Radiological Materials;
- Hosting of Nuclear Security Conferences and Events;

Next steps

It was noted in the summit communiqué that the next NSS would be hosted by The Netherlands in 2014.

NSS 2014

The 2014 Nuclear Security Summit followed a similar format to previous gatherings and was preceded by related academic and industry symposiums. Held in The Hague, Netherlands on the 24th and 25th of March 2014 the summit brought together world leaders and senior representatives from 53 countries and 4 international organisations.

In line with the precedent set by past summits, nuclear security experts known as sherpas and sous-sherpas met regularly in the two year period before the summit. The 2014 Summit focused on the key issues of:

- Strengthening the global nuclear security architecture;
- Cooperation between governments and nuclear industry;
- Maintaining progress on prior Summit commitments.

Communiqué

The Summit Communiqué, while focusing on strengthening nuclear security, reaffirmed the commitments of states to the broader 'shared' goals of nuclear disarmament, non-proliferation and peaceful use of nuclear energy. Emphasising that progress in nuclear security will 'not hamper the rights of States to develop and use nuclear energy for peaceful purposes'.¹⁴¹

The communiqué recognised the need for 'continuous efforts' to achieve a common goal of improving international security and highlighted 12 key areas (see Part II for the full text of the communiqué):

Fundamental responsibility of States

States remain key actors when it comes to securing nuclear and radioactive materials, information and facilities and should develop 'robust national legislation and regulations' in this area.

International cooperation

Nuclear security can be further strengthened through greater international, regional and bi-lateral cooperation, through the IAEA and other relevant forums. Here the focus should be on sharing good practices and lessons learnt as a mechanism for building security culture.

Strengthened international nuclear security architecture

States should be encouraged to become party to the Convention on the Physical Protection of Nuclear Material (CPPNM) and to ratify its 2005 amendment, which is still not yet in force. The International Convention for the Suppression of Acts of Nuclear Terrorism also has an important role to play within this architecture and new ratifications and accessions are welcomed, as are efforts to share 'model

(national) legislation' on nuclear security. States also reaffirmed the 'essential responsibility and the central role of the IAEA' in this architecture, highlighting the importance of its nuclear security guidance and Integrated Nuclear Security Support Plans (INSSP). Given that the IAEA's role will 'be crucial in the years ahead', states were encouraged to provide 'greater political, technical and financial support for the Agency'. The role of the United Nations was also highlighted, with states urged to fully implement UNSCR 1540 and provide regular reporting on such efforts. The importance of informal initiatives was also recognised, specifically the Global Initiative to Combat Nuclear Terrorism (GICNT) and the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, with the development of new regional initiatives welcomed.

Voluntary measures

States were called upon to publicise their nuclear security efforts, while at the same time ensuring the protection of sensitive information. This could be achieved through the voluntary publication of information, inviting IAEA review, 'participation in training courses and applying domestic certification schemes.'

Nuclear material

It was highlighted that significant progress has been made over the past four years in securing, consolidating and accounting for HEU. States were encouraged to minimise their stockpiles of this material and separated plutonium. More specifically it was suggested that states could convert reactor fuel from HEU to LEU, where technically and economically feasible and utilise 'non-HEU technologies for the production of radioisotopes.'

Radioactive sources and materials

Progress in securing high-strength radioactive sources was highlighted, with states establishing national inventories and amending national legislation and regulations. The central role of the IAEA and the guidance contained within the Code of Conduct on the Safety and Security of Radioactive Sources and Nuclear Security Series was also emphasised.

Nuclear security and safety

One of the key areas of focus of the 2012 Summit, the 2014 communiqué reaffirmed the need to manage nuclear security and safety in a 'coherent and coordinated manner.' The importance of developing a nuclear security culture, 'with a particular focus on the coordination of safety and security' was also emphasised.

Nuclear industry

The 'primary' responsibility of industry to secure nuclear material was recognized, with emphasis on 'an effective security culture, physical protection and material accountancy'. The Nuclear Industry Summit was also highlighted as 'positive engagement' by industry in this area.

Information and cyber security

The communiqué emphasised the importance of information security and the 'growing threat of cyber attacks'. Threats here can be mitigated through the promotion of a 'nuclear security culture that emphasises the need to protect sensitive expertise and information and discourages publication of such information in online media and in public forums'.

Nuclear Transportation

The importance of sharing best practices in nuclear transport was emphasised, as a means of enhancing security.

Illicit Trafficking

States were urged to participate in the IAEA Incident and Trafficking Database and share information on illicit trafficking in a timely manner. A greater sharing of best practices and expertise in the areas of 'nuclear detection, forensics, law enforcement, and the development of new technologies to enhance enforcement capacity of customs personnel', was also emphasised.

Nuclear Forensics

The growing maturity of nuclear forensic as a tool used in determining the origin of nuclear material was highlighted. States were encouraged to further international collaboration in this area, with the central role of the IAEA was emphasised.

National commitments and joint statements

As at the previous Summit, states present in The Hague also discussed progress made at the national level and in the context of international cooperation since 2012 based on commitments made in Seoul.

A total of 20 statements and 51 progress reports were submitted by participating countries and international organisations at the Hague summit. Moreover, 18 joint statements were also made (see Part II for a summary of achievements extracted from statements and progress reports officially reported and for original texts of the joint statements). The joint statements included:

- Joint Statement by President Obama and President Nazarbayev of Kazakhstan on Cooperation in the Sphere of Nonproliferation and Strengthening Nuclear Security
- Joint Statement by President Obama and Prime Minister Elio Di Rupo of Belgium on the 2014 Nuclear Security Summit
- Joint Statement by the Leaders of Japan and the United States on Contributions to the Global Minimization of Nuclear Material
- Joint Statement by the United States and Italy on the 2014 Nuclear Security Summit
- Joint Statement on a Comprehensive Approach to Nuclear Security
- Joint Statement on the Contributions of the Global Initiative to Combat Nuclear Terrorism (GICNT) to Enhancing Nuclear Security
- Joint Statement on Countries Free of Highly Enriched Uranium (HEU)
- Joint Statement on Enhancing Radiological Security
- Joint Statement on Enhancing the Security of the Maritime Supply Chain
- Joint Statement on Forensics in Nuclear Security
- Joint Statement on Multinational Cooperation on High-Density Low-Enriched Uranium Fuel Development
- Joint Statement on Nuclear Security Training and Support Centres/Centres of Excellence
- Joint Statement on the National Legislation Implementation Kit on Nuclear Security
- Joint Statement on Promoting Full and Universal Implementation of United Nations Security Council Resolution 1540
- Joint Statement on Transport Security
- Joint U.S.-EU Statement on Combating Illicit Trafficking
- Statement of Activity and Cooperation to Counter Nuclear Smuggling
- Strengthening Nuclear Security Implementation

Progress since 2012

In terms of progress since the 2012 summit participants in The Hague reported on key areas where positive movement had been realised in the intervening two years. Progress in the following areas were noted: (see Part II for a summary of key facts on progress):

- Strengthening Nuclear Security-Related International Conventions and Multilateral Initiatives
- Removing and repatriating HEU
- Converting nuclear reactors, including research reactors, to operate with LEU fuel

- Establishing nuclear security training centers and conducting training activities
- Improving domestic legislation
- Introducing database systems to catalogue radioactive sources
- Conducting operations to secure 'orphan sources'

Next steps

It was noted in the summit communiqué that the next NSS would be hosted by the United States in 2016

NSS 2016

During a speech at the Brandenburg Gate in Berlin on 19 June 2013, President Obama announced that, 'America will host a summit in 2016 to continue our efforts to secure nuclear materials around the world'.¹⁴² This event is due to place in Washington, DC from 31 March to 1 April 2016. The culmination of the process initiated by President Obama in 2010, the 2016 Nuclear Security Summit will bring together more than 50 world leaders. The United Nations, the International Atomic Energy Agency, the European Union and Interpol have also been invited to attend as observers

The challenges facing leaders at the 2016 Summit are twofold. First, it is important to avoid 'summit fatigue' and maintain the momentum generated by previous events. To this end, it is anticipated that the 2016 summit will produce a host of new national commitments; established processes have seen sherpas and sous-sherpas working on national contributions since the end of the 2014 summit. HEU minimization, radiological source security and information security are three areas that will certainly continue to focus attention.

The summit will also seek to advance broader international efforts in this area. For example, the United States ratified the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) in July 2015.¹⁴³ This brought entry into force of the Amendment a step closer, and Washington is likely to push for other states to pursue ratification.

On a larger scale, the 2016 summit is being viewed as a 'transition summit', with a priority being to ensure that 'the nuclear security architecture and the important achievements of the Summit process are maintained and sustained'.¹⁴⁴

Beyond the NSS process

There has been considerable speculation about how high-level political momentum will be maintained beyond the 2016 NSS in order to ensure efforts to prevent nuclear terrorism continue to be accorded sufficient international attention.

It appears that the way forward in this regard will involve five international organisations: the International Atomic Energy Agency; the Global Initiative to Combat Nuclear Terrorism; the United Nations; the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction; and Interpol. It is envisaged that each of these organisations will have an action plan reflected in the final communiqué of the 2016 summit.

It is worth noting that plans to continue international dialogue on nuclear security issues are already in place. In December 2016, the IAEA will host the 'International Conference on Nuclear Security: Commitments and Actions' in Vienna. This conference will build on the success of a previous event, the 'International Conference on Nuclear Security: Enhancing Global Efforts', held in Vienna in July 2013.

The IAEA conference will bring together many of the key players involved in supporting the continuation of the global nuclear security effort. These include government ministers, senior officials and policy-makers, and advisors and experts from a range of intergovernmental and non-governmental

organizations with relevant competencies. Organizations represented will include Interpol, GICNT, Europol, and various branches of the United Nations.¹⁴⁵

The conference will address 6 key themes including:

- International legal instruments for nuclear security: universalization and implementation of binding international legal instruments;
- International bodies and initiatives for nuclear security: role of the IAEA in coordinating international efforts;
- Nuclear material and nuclear facilities: national approaches, emerging trends and areas to be addressed;
- Radioactive material and associated facilities: national approaches, emerging trends and areas to be addressed;
- Nuclear and other radioactive material out of regulatory control: existing approaches, emerging trends and areas to be addressed; and
- National nuclear security regimes: existing approaches, emerging trends and areas to be addressed.¹⁴⁶

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- ¹³³ 'Key Facts about the Nuclear Security Summit', Key Documents, Nuclear Security Summit, Washington, DC, April 12-13 2010, <http://fpc.state.gov/documents/organization/140352.pdf>.
- ¹³⁴ 'Press Briefing to Preview The Nuclear Security Summit by Gary Samore, White House Coordinator for WMD Counter-Terrorism and Arms Control, and Ben Rhodes, Deputy National Security Advisor for Strategic Communications', The White House, Office of the Press Secretary, <http://www.whitehouse.gov/the-press-office/press-briefing-preview-nuclear-security-summit-gary-samore-white-house-coordinator->.
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- ¹³⁶ 'Key Facts about the Nuclear Security Summit', Key Documents, Nuclear Security Summit, Washington, DC, April 12-13 2010, <http://fpc.state.gov/documents/organization/140352.pdf>.
- ¹³⁷ *Ibid.*
- ¹³⁸ 'About the NSS', Nuclear Security Summit 2014, <https://www.nss2014.com/en/nss-2014/about-the-nss>.
- ¹³⁹ 'Key Facts on the 2012 Seoul Nuclear Security Summit', US Department of State, 28 March 2012, <http://www.state.gov/t/isn/rls/fs/187208.htm>.
- ¹⁴⁰ 'Seoul Communiqué 2012', http://www.un.org/disarmament/content/spotlight/docs/Seoul_Communique.pdf.
- ¹⁴¹ 'The Hague Nuclear Security Summit Communiqué', <http://www.state.gov/documents/organization/237002.pdf>.
- ¹⁴² Remarks by President Obama at the Brandenburg Gate, Berlin, Germany, The White House, Office of the Press Secretary, 19 June 2013, <http://www.whitehouse.gov/the-press-office/2013/06/19/remarks-president-obama-brandenburg-gate-berlin-germany>.
- ¹⁴³ 'United States Ratifies Key Nuclear Security Amendment', International Atomic Energy Agency, 31 July 2015, <https://www.iaea.org/newscenter/news/united-states-ratifies-key-nuclear-security-amendment>.
- ¹⁴⁴ Bonnie Jenkins, 'The 2016 Nuclear Security Summit: A Point of Transition', US Department of State Official Blog, 11 March 2016, <https://blogs.state.gov/stories/2016/03/11/2016-nuclear-security-summit-point-transition>.
- ¹⁴⁵ <http://www-pub.iaea.org/iaeameetings/50809/International-Conference-on-Nuclear-Security-Commitments-and-Actions>
- ¹⁴⁶ *Ibid.*

Part II Nuclear Security Instruments and Initiatives

A – Formal Conventions

Convention on the Physical Protection of Nuclear Material

[Signed at Vienna and New York on 3 March 1980,
entered into force on 8 February 1987]

The states parties to this convention,

Recognizing the right of all States to develop and apply nuclear energy for peaceful purposes and their legitimate interests in the potential benefits to be derived from the peaceful application of nuclear energy,

Convinced of the need for facilitating international co-operation in the peaceful application of nuclear energy,

Desiring to avert the potential dangers posed by the unlawful taking and use of nuclear material,

Convinced that offences relating to nuclear material are a matter of grave concern and that there is an urgent need to adopt appropriate and effective measures to ensure the prevention, detection and punishment of such offences,

Aware of the need for international co-operation to establish, in conformity with the national law of each State Party and with this Convention, effective measures for the physical protection of nuclear material,

Convinced that this Convention should facilitate the safe transfer of nuclear material,

Stressing also the importance of the physical protection of nuclear material in domestic use, storage and transport,

Recognizing the importance of effective physical protection of nuclear material used for military purposes, and understanding that such material is and will continue to be accorded stringent physical protection,

Have agreed as follows:

Article 1

For the purposes of this Convention:

(a) 'nuclear material' means plutonium except that with isotopic concentration exceeding 80% in plutonium-238; uranium-233; uranium enriched in the isotope 235 or 233; uranium containing the mixture of isotopes as occurring in nature other than in the form of ore or ore-residue; any material containing one or more of the foregoing;

(b) 'uranium enriched in the isotope 235 or 233' means uranium containing the isotope 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature;

(c) 'international nuclear transport' means the carriage of a consignment of nuclear material by any means of transportation intended to go beyond the territory of the State where the shipment originates beginning with the departure from a facility of the shipper in that State and ending with the arrival at a facility of the receiver within the State of ultimate destination.

Article 2

1. This Convention shall apply to nuclear material used for peaceful purposes while in international nuclear transport.
2. With the exception of articles 3 and 4 and paragraph 3 of article 5, this Convention shall also apply to nuclear material used for peaceful purposes while in domestic use, storage and transport.
3. Apart from the commitments expressly undertaken by States Parties in the articles covered by paragraph 2 with respect to nuclear material used for peaceful purposes while in domestic use, storage and transport, nothing in this Convention shall be interpreted as affecting the sovereign rights of a State regarding the domestic use, storage and transport of such nuclear material.

Article 3

Each State Party shall take appropriate steps within the framework of its national law and consistent with international law

to ensure as far as practicable that, during international nuclear transport, nuclear material within its territory, or on board a ship or aircraft under its jurisdiction insofar as such ship or aircraft is engaged in the transport to or from the State, is protected at the levels described in Annex I.

Article 4

1. Each State Party shall not export or authorize the export of nuclear material unless the State Party has received assurances that such material will be protected during the international nuclear transport at the levels described in Annex I.
2. Each State Party shall not import or authorize the import of nuclear material from a State not party to this Convention unless the State Party has received assurances that such material will during the international nuclear transport be protected at the levels described in Annex I.
3. A State Party shall not allow the transit through its territory by land or internal waterways or through its airports or seaports of nuclear material between States that are not parties to this Convention unless the State Party has received assurances as far as practicable that this nuclear material will be protected during international nuclear transport at the levels described in Annex I.
4. Each State Party shall apply within the framework of its national law the levels of physical protection described in Annex I to nuclear material being transported from a part of that State to another part of the same State through international waters or airspace.
5. The State Party responsible for receiving assurances that the nuclear material will be protected at the levels described in Annex I according to paragraphs 1 to 3 shall identify and inform in advance States which the nuclear material is expected to transit by land or international waterways, or whose airports or seaports it is expected to enter.
6. The responsibility for obtaining assurances referred to in paragraph 1 may be transferred, by mutual agreement, to the State Party involved in the transport as the importing State.
7. Nothing in this article shall be interpreted as in any way affecting the territorial sovereignty and jurisdiction of a State, including that over its airspace and territorial sea.

Article 5

1. States Parties shall identify and make known to each other directly or through the International Atomic Energy Agency their central authority and point of contact having responsibility for physical protection of nuclear material and for co-ordinating recovery and response operations in the event of any unauthorized removal, use or alteration of nuclear material or in the event of credible threat thereof.
 2. In the case of theft, robbery or any other unlawful taking of nuclear material or of credible threat thereof, States Parties shall, in accordance with their national law, provide co-operation and assistance to the maximum feasible extent in the recovery and protection of such material to any State that so requests. In particular:
 - (a) a State Party shall take appropriate steps to inform as soon as possible other States, which appear to it to be concerned, of any theft, robbery or other unlawful taking of nuclear material or credible threat thereof and to inform, where appropriate, international organizations;
 - (b) as appropriate, the States Parties concerned shall exchange information with each other or international organizations with a view to protecting threatened nuclear material, verifying the integrity of the shipping container, or recovering unlawfully taken nuclear material and shall:
 - (i) co-ordinate their efforts through diplomatic and other agreed channels;
 - (ii) render assistance, if requested;
 - (iii) ensure the return of nuclear material stolen or missing as a consequence of the above-mentioned events.
- The means of implementation of this co-operation shall be

determined by the States Parties concerned.

3. States Parties shall co-operate and consult as appropriate, with each other directly or through international organizations, with a view to obtaining guidance on the design, maintenance and improvement of systems of physical protection of nuclear material in international transport.

Article 6

1. States Parties shall take appropriate measures consistent with their national law to protect the confidentiality of any information which they receive in confidence by virtue of the provisions of this Convention from another State Party or through participation in an activity carried out for the implementation of this Convention. If States Parties provide information to international organizations in confidence, steps shall be taken to ensure that the confidentiality of such information is protected.

2. States Parties shall not be required by this Convention to provide any information which they are not permitted to communicate pursuant to national law or which would jeopardize the security of the State concerned or the physical protection of nuclear material.

Article 7

1. The intentional commission of:

(a) an act without lawful authority which constitutes the receipt, possession, use, transfer, alteration, disposal or dispersal of nuclear material and which causes or is likely to cause death or serious injury to any person or substantial damage to property;

(b) a theft or robbery of nuclear material;

(c) an embezzlement or fraudulent obtaining of nuclear material;

(d) an act constituting a demand for nuclear material by threat or use of force or by any other form of intimidation;

(e) a threat:

(i) to use nuclear material to cause death or serious injury to any person or substantial property damage, or

(ii) to commit an offence described in sub-paragraph (b) in order to compel a natural or legal person, international organization or State to do or to refrain from doing any act;

(f) an attempt to commit any offence described in paragraphs (a), (b) or (c); and

(g) an act which constitutes participation in any offence described in paragraphs (a) to (f) shall be made a punishable offence by each State Party under its national law.

2. Each State Party shall make the offences described in this article punishable by appropriate penalties which take into account their grave nature.

Article 8

1. Each State Party shall take such measures as may be necessary to establish its jurisdiction over the offences set forth in article 7 in the following cases:

(a) when the offence is committed in the territory of that State or on board a ship or aircraft registered in that State;

(b) when the alleged offender is a national of that State.

2. Each State Party shall likewise take such measures as may be necessary to establish its jurisdiction over these offences in cases where the alleged offender is present in its territory and it does not extradite him pursuant to article 11 to any of the States mentioned in paragraph 1.

3. This Convention does not exclude any criminal jurisdiction exercised in accordance with national law.

4. In addition to the States Parties mentioned in paragraphs 1 and 2, each State Party may, consistent with international law, establish its jurisdiction over the offences set forth in article 7 when it is involved in international nuclear transport as the exporting or importing state.

Article 9

Upon being satisfied that the circumstances so warrant, the State Party in whose territory the alleged offender is present shall take appropriate measures, including detention, under its national law to ensure his presence for the purpose of prosecution or extradition. Measures taken according to this article shall be notified without delay to the States required to establish jurisdiction pursuant to article 8, and where appropriate, all other States concerned.

Article 10

The State Party in whose territory the alleged offender is present shall, if it does not extradite him, submit, without exception

whatsoever and without undue delay, the case to its competent authorities for the purpose of prosecution, through proceedings in accordance with the laws of that State.

Article 11

1. The offences in article 7 shall be deemed to be included as extraditable offences in any extradition treaty existing between States Parties. States Parties undertake to include those offences as extraditable offences in every future extradition treaty to be concluded between them.

2. If a State Party which makes extradition conditional on the existence of a treaty receives a request for extradition from another State Party with which it has no extradition treaty, it may at its option consider this Convention as the legal basis for extradition in respect of those offences. Extradition shall be subject to the other conditions provided by the law of the requested State.

3. States Parties which do not make extradition conditional on the existence of a treaty shall recognize those offences as extraditable offences between themselves subject to the conditions provided by the law of the requested State.

4. Each of the offences shall be treated, for the purpose of extradition between States Parties, as if it had been committed not only in the place in which it occurred but also in the territories of the States Parties required to establish their jurisdiction in accordance with paragraph 1 of article 8.

Article 12

Any person regarding whom proceedings are being carried out in connection with any of the offences set forth in article 7 shall be guaranteed fair treatment at all stages of the proceedings.

Article 13

1. States Parties shall afford one another the greatest measure of assistance in connection with criminal proceedings brought in respect of the offences set forth in article 7, including the supply of evidence at their disposal necessary for the proceedings. The law of the State requested shall apply in all cases.

2. The provisions of paragraph 1 shall not affect obligations under any other treaty, bilateral or multilateral, which governs or will govern, in whole or in part, mutual assistance in criminal matters.

Article 14

1. Each State Party shall inform the depositary of its laws and regulations which give effect to this Convention. The depositary shall communicate such information periodically to all States Parties.

2. The State Party where an alleged offender is prosecuted shall, wherever practicable, first communicate the final outcome of the proceedings to the States directly concerned. The State Party shall also communicate the final outcome to the depositary who shall inform all States.

3. Where an offence involves nuclear material used for peaceful purposes in domestic use, storage or transport, and both the alleged offender and the nuclear material remain in the territory of the State Party in which the offence was committed, nothing in this Convention shall be interpreted as requiring that State Party to provide information concerning criminal proceedings arising out of such an offence.

Article 15

The Annexes constitute an integral part of this Convention.

Article 16

1. A conference of States Parties shall be convened by the depositary five years after the entry into force of this Convention to review the implementation of the Convention and its adequacy as concerns the preamble, the whole of the operative part and the annexes in the light of the then prevailing situation.

2. At intervals of not less than five years thereafter, the majority of States Parties may obtain, by submitting a proposal to this effect to the depositary, the convening of further conferences with the same objective.

Article 17

1. In the event of a dispute between two or more States Parties concerning the interpretation or application of this Convention, such States Parties shall consult with a view to the settlement of the dispute by negotiation, or by any other peaceful means of settling disputes acceptable to all parties to the dispute.

2. Any dispute of this character which cannot be settled in the

manner prescribed in paragraph 1 shall, at the request of any party to such dispute, be submitted to arbitration or referred to the International Court of Justice for decision. Where a dispute is submitted to arbitration, if, within six months from the date of the request, the parties to the dispute are unable to agree on the organization of the arbitration, a party may request the President of the International Court of Justice or the Secretary-General of the United Nations to appoint one or more arbitrators. In case of conflicting requests by the parties to the dispute, the request to the Secretary-General of the United Nations shall have priority.

3. Each State Party may at the time of signature, ratification, acceptance or approval of this Convention or accession thereto declare that it does not consider itself bound by either or both of the dispute settlement procedures provided for in paragraph 2. The other States Parties shall not be bound by a dispute settlement procedure provided for in paragraph 2, with respect to a State Party which has made a reservation to that procedure.

4. Any State Party which has made a reservation in accordance with paragraph 3 may at any time withdraw that reservation by notification to the depositary.

Article 18

1. This Convention shall be open for signature by all States at the Headquarters of the International Atomic Energy Agency in Vienna and at the Headquarters of the United Nations in New York from 3 March 1980 until its entry into force.

2. This Convention is subject to ratification, acceptance or approval by the signatory States.

3. After its entry into force, this Convention will be open for accession by all States.

4. (a) This Convention shall be open for signature or accession by international organizations and regional organizations of an integrated or other nature, provided that any such organization is constituted by sovereign States and has competence in respect of the negotiation, conclusion and application of international agreements in matters covered by this Convention.

(b) In matters within their competence, such organizations shall, on their own behalf, exercise the rights and fulfil the responsibilities which this Convention attributes to States Parties.

(c) When becoming party to this Convention such an organization shall communicate to the depositary a declaration indicating which States are members thereof and which articles of this Convention do not apply to it.

(d) Such an organization shall not hold any vote additional to those of its Member States.

5. Instruments of ratification, acceptance, approval or accession shall be deposited with the depositary.

Article 19

1. This Convention shall enter into force on the thirtieth day following the date of deposit of the twenty-first instrument of ratification, acceptance or approval with the depositary.

2. For each State ratifying, accepting, approving or acceding to the Convention after the date of deposit of the twenty-first instrument of ratification, acceptance or approval, the Convention shall enter into force on the thirtieth day after the deposit by such State of its instrument of ratification, acceptance, approval or accession.

Article 20

1. Without prejudice to article 16 a State Party may propose amendments to this Convention. The proposed amendment shall be submitted to the depositary who shall circulate it immediately to all States Parties. If a majority of States Parties request the depositary to convene a conference to consider the proposed amendments, the depositary shall invite all States Parties to attend such a conference to begin not sooner than thirty days after the invitations are issued. Any amendment adopted at the conference by a two-thirds majority of all States Parties shall be promptly circulated by the depositary to all States Parties.

2. The amendment shall enter into force for each State Party that deposits its instrument of ratification, acceptance or approval of the amendment on the thirtieth day after the date on which two thirds of the States Parties have deposited their instruments of ratification, acceptance or approval with the depositary. Thereafter, the amendment shall enter into force for any other State Party on the day on which that State Party deposits its instrument of ratification, acceptance or approval of the amendment.

Article 21

1. Any State Party may denounce this Convention by written notification to the depositary.

2. Denunciation shall take effect one hundred and eighty days following the date on which notification is received by the depositary.

Article 22

The depositary shall promptly notify all States of:

- (a) each signature of this Convention;
- (b) each deposit of an instrument of ratification, acceptance, approval or accession;
- (c) any reservation or withdrawal in accordance with article 17.
- (d) any communication made by an organization in accordance with paragraph 4 (c) of article 18;
- (e) the entry into force of this Convention;
- (f) the entry into force of any amendment to this Convention; and
- (g) any denunciation made under article 21.

Article 23

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Director General of the International Atomic Energy Agency who shall send certified copies thereof to all States.

ANNEX 1

1. Levels of physical protection to be applied to international transport of nuclear material as categorized in Annex II.

(a) For category III materials, storage within an area to which access is controlled;

(b) For Category II materials, storage within an area under constant surveillance by guards or electronic devices, surrounded by a physical barrier with a limited number of points of entry under appropriate control or any area with an equivalent level of physical protection;

(c) For Category I material, storage within a protected area as defined for Category II above, to which, in addition, access is restricted to persons whose trustworthiness has been determined, and which is under surveillance by guards who are in close communication with appropriate response forces. Specific measures taken in this context should have as their object the detection and prevention of any assault, unauthorized access or unauthorized removal of material.

2. Levels of physical protection for nuclear material during international transport include:

(a) For Category I I and I II materials, transportation shall take place under special precautions including prior arrangements among sender, receiver, and carrier, and prior agreement between natural or legal persons subject to the jurisdiction and regulation of exporting and importing States, specifying time, place and procedures for transferring transport responsibility;

(b) For Category I materials, transportation shall take place under special precautions identified above for transportation of Category II and III materials, and in addition, under constant surveillance by escorts and under conditions which assure close communication with appropriate response forces.

(c) For natural uranium other than in the form of ore or ore-residue, transportation protection for quantities exceeding 500 kilograms uranium shall include advance notification of shipment specifying mode of transport, expected time of arrival and confirmation of receipt of shipment.

Status of the Convention on the Physical Protection of Nuclear Material

[Reproduced from IAEA table dated
17 December 2013, Registration No. 1533]

Notes: The Convention entered into force on 8 February 1987, i.e. on the thirtieth day following the deposit of the twenty-first instrument of ratification, acceptance or approval with the Director General pursuant to Article 19, paragraph 1.

Last change of status: 15 September 2015
Parties: 153 (*subject to entry into force date*)
Signatories: 44

A – Formal Conventions

Country/Organisation	Signature	Instrument	Date of deposit	Declaration etc. /Withdrawal		Entry into force
				<input type="checkbox"/>	<input type="checkbox"/>	
Afghanistan		accession	12 Sep 2003	<input type="checkbox"/>	<input type="checkbox"/>	12 Oct 2003
Albania		accession	05 Mar 2002	<input type="checkbox"/>	<input type="checkbox"/>	04 Apr 2002
Algeria		accession	30 Apr 2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30 May 2003
Andorra		accession	27 Jun 2006	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27 Jul 2006
Antigua and Barbuda		accession	04 Aug 1993	<input type="checkbox"/>	<input type="checkbox"/>	03 Sep 1993
Argentina	28 Feb 1986	ratification	06 Apr 1989	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 May 1989
Armenia		accession	24 Aug 1993	<input type="checkbox"/>	<input type="checkbox"/>	23 Sep 1993
Australia	22 Feb 1984	ratification	22 Sep 1987	<input type="checkbox"/>	<input type="checkbox"/>	22 Oct 1987
^a Austria	03 Mar 1980	ratification	22 Dec 1988	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21 Jan 1989
Azerbaijan		accession	19 Jan 2004	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18 Feb 2004
Bahamas		accession	21 May 2008	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20 Jun 2008
Bahrain		accession	10 May 2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9 Jun 2010
Bangladesh		accession	11 May 2005	<input type="checkbox"/>	<input type="checkbox"/>	10 Jun 2005
Belarus		succession	09 Sep 1993	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14 Jun 1993
^a Belgium	13 Jun 1980	ratification	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Bolivia		accession	24 Jan 2002	<input type="checkbox"/>	<input type="checkbox"/>	23 Feb 2002
Bosnia and Herzegovina		succession	30 Jun 1998	<input type="checkbox"/>	<input type="checkbox"/>	01 Mar 1992
Botswana		accession	19 Sep 2000	<input type="checkbox"/>	<input type="checkbox"/>	19 Oct 2000
Brazil	15 May 1981	ratification	17 Oct 1985	<input type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Bulgaria	23 Jun 1981	ratification	10 Apr 1984	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	08 Feb 1987
Burkina Faso		accession	13 Jan 2004	<input type="checkbox"/>	<input type="checkbox"/>	12 Feb 2004
Cabo Verde		accession	23 Feb 2007	<input type="checkbox"/>	<input type="checkbox"/>	25 Mar 2007
Cambodia		accession	04 Aug 2006	<input type="checkbox"/>	<input type="checkbox"/>	03 Sep 2006
Cameroon		accession	29 Jun 2004	<input type="checkbox"/>	<input type="checkbox"/>	29 Jul 2004
Canada	23 Sep 1980	ratification	21 Mar 1986	<input type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Central African Republic		accession	20 Feb 2008	<input type="checkbox"/>	<input type="checkbox"/>	21 Mar 2008
Chile		accession	27 Apr 1994	<input type="checkbox"/>	<input type="checkbox"/>	27 May 1994
China		accession	10 Jan 1989	<input checked="" type="checkbox"/>	<input type="checkbox"/>	09 Feb 1989
Colombia		accession	28 Mar 2003	<input type="checkbox"/>	<input type="checkbox"/>	27 Apr 2003
Comoros		accession	18 May 2007	<input type="checkbox"/>	<input type="checkbox"/>	17 Jun 2007
Costa Rica		accession	02 May 2003	<input type="checkbox"/>	<input type="checkbox"/>	01 Jun 2003
Côte d'Ivoire		accession	17 Oct 2012	<input type="checkbox"/>	<input type="checkbox"/>	16 Nov 2012
Croatia		succession	29 Sep 1992	<input type="checkbox"/>	<input type="checkbox"/>	08 Oct 1991
Cuba		accession	26 Sep 1997	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26 Oct 1997
Cyprus		accession	23 Jul 1998	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22 Aug 1998
Czech Republic		succession	24 Mar 1993	<input type="checkbox"/>	<input type="checkbox"/>	01 Jan 1993
Democratic Rep. of the Congo		accession	21 Sep 2004	<input type="checkbox"/>	<input type="checkbox"/>	21 Oct 2004
^a Denmark	13 Jun 1980	ratification	06 Sep 1991	<input type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Djibouti		accession	22 Jun 2004	<input type="checkbox"/>	<input type="checkbox"/>	22 Jul 2004
Dominica		accession	08 Nov 2004	<input type="checkbox"/>	<input type="checkbox"/>	08 Dec 2004
Dominican Republic	03 Mar 1980	ratification	30 Apr 2009	<input type="checkbox"/>	<input type="checkbox"/>	30 May 2009
Ecuador	26 Jun 1986	ratification	17 Jan 1996	<input type="checkbox"/>	<input type="checkbox"/>	16 Feb 1996
El Salvador		accession	15 Dec 2006	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14 Jan 2007
Equatorial Guinea		accession	24 Nov 2003	<input type="checkbox"/>	<input type="checkbox"/>	24 Dec 2003
Estonia		accession	09 May 1994	<input type="checkbox"/>	<input type="checkbox"/>	08 Jun 1994
Fiji		accession	23 May 2008	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22 Jun 2008
^a Finland	25 Jun 1981	acceptance	22 Sep 1989	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22 Oct 1989
^a France	13 Jun 1980	approval	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Gabon		accession	19 Feb 2008	<input type="checkbox"/>	<input type="checkbox"/>	20 Mar 2008
Georgia		accession	07 Sep 2006	<input type="checkbox"/>	<input type="checkbox"/>	07 Oct 2006
^a Germany	13 Jun 1980	ratification	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Ghana		accession	16 Oct 2002	<input type="checkbox"/>	<input type="checkbox"/>	15 Nov 2002
^a Greece	03 Mar 1980	ratification	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Grenada		accession	09 Jan 2002	<input type="checkbox"/>	<input type="checkbox"/>	08 Feb 2002
Guatemala	12 Mar 1980	ratification	23 Apr 1985	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Guinea		accession	29 Nov 2005	<input type="checkbox"/>	<input type="checkbox"/>	29 Dec 2005
Guinea-Bissau		accession	08 Oct 2008	<input type="checkbox"/>	<input type="checkbox"/>	07 Nov 2008
Guyana		accession	13 Sep 2007	<input type="checkbox"/>	<input type="checkbox"/>	13 Oct 2007
Haiti	09 Apr 1980			<input type="checkbox"/>	<input type="checkbox"/>	
Honduras		accession	28 Jan 2004	<input type="checkbox"/>	<input type="checkbox"/>	27 Feb 2004
Hungary	17 Jun 1980	ratification	04 May 1984	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	08 Feb 1987
Iceland		accession	18 Jun 2002	<input type="checkbox"/>	<input type="checkbox"/>	18 Jul 2002
India		accession	12 Mar 2002	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11 Apr 2002
Indonesia	03 Jul 1986	ratification	05 Nov 1986	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Iraq		accession	07 Jul 2014	<input type="checkbox"/>	<input type="checkbox"/>	06 Aug 2014
^a Ireland	13 Jun 1980	ratification	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Israel	17 Jun 1983	ratification	22 Jan 2002	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21 Feb 2002
^a Italy	13 Jun 1980	ratification	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Jamaica		accession	16 Aug 2005	<input type="checkbox"/>	<input type="checkbox"/>	15 Sep 2005
Japan		accession	28 Oct 1988	<input type="checkbox"/>	<input type="checkbox"/>	27 Nov 1988
Jordan		accession	07 Sep 2009	<input checked="" type="checkbox"/>	<input type="checkbox"/>	07 Oct 2009
Kazakhstan		accession	02 Sep 2005	<input type="checkbox"/>	<input type="checkbox"/>	02 Oct 2005
Kenya		accession	11 Feb 2002	<input type="checkbox"/>	<input type="checkbox"/>	13 Mar 2002
Korea, Republic of	29 Dec 1981	ratification	07 Apr 1982	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Kuwait		accession	23 Apr 2004	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23 May 2004
Kyrgyzstan		accession	15 Sep 2015	<input type="checkbox"/>	<input type="checkbox"/>	15 Oct 2015
Lao P.D.R.		accession	29 Sep 2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29 Oct 2010
Latvia		accession	06 Nov 2002	<input type="checkbox"/>	<input type="checkbox"/>	06 Dec 2002
Lebanon		accession	16 Dec 1997	<input type="checkbox"/>	<input type="checkbox"/>	15 Jan 1998
Lesotho		accession	18 Aug 2010	<input type="checkbox"/>	<input type="checkbox"/>	17 Sep 2010
Libya		accession	18 Oct 2000	<input type="checkbox"/>	<input type="checkbox"/>	17 Nov 2000
Liechtenstein	13 Jan 1986	ratification	25 Nov 1986	<input type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987

Lithuania		accession	07 Dec 1993	<input type="checkbox"/>	<input type="checkbox"/>	06 Jan 1994
*, ^a Luxembourg	13 Jun 1980	ratification	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Madagascar		accession	28 Oct 2003	<input type="checkbox"/>	<input type="checkbox"/>	27 Nov 2003
Malawi		accession	17 Dec 2013	<input type="checkbox"/>	<input type="checkbox"/>	16 Jan 2014
Mali		accession	07 May 2002	<input type="checkbox"/>	<input type="checkbox"/>	06 Jun 2002
Malta		accession	16 Oct 2003	<input type="checkbox"/>	<input type="checkbox"/>	15 Nov 2003
Marshall Islands		accession	07 Feb 2003	<input type="checkbox"/>	<input type="checkbox"/>	09 Mar 2003
Mauritania		accession	29 Jan 2008	<input type="checkbox"/>	<input type="checkbox"/>	28 Feb 2008
Mexico		accession	04 Apr 1988	<input type="checkbox"/>	<input type="checkbox"/>	04 May 1988
Monaco		accession	09 Aug 1996	<input type="checkbox"/>	<input type="checkbox"/>	08 Sep 1996
Mongolia	23 Jan 1986	ratification	28 May 1986	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	08 Feb 1987
Montenegro		succession	21 Mar 2007	<input type="checkbox"/>	<input type="checkbox"/>	03 Jun 2006
Morocco	25 Jul 1980	ratification	23 Aug 2002	<input type="checkbox"/>	<input type="checkbox"/>	22 Sep 2002
Mozambique		accession	03 Mar 2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>	02 Apr 2003
Namibia		accession	02 Oct 2002	<input type="checkbox"/>	<input type="checkbox"/>	01 Nov 2002
Nauru		accession	12 Aug 2005	<input type="checkbox"/>	<input type="checkbox"/>	11 Sep 2005
*, ^a Netherlands	13 Jun 1980	acceptance	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
New Zealand		accession	19 Dec 2003	<input type="checkbox"/>	<input type="checkbox"/>	18 Jan 2004
Nicaragua		accession	10 Dec 2004	<input type="checkbox"/>	<input type="checkbox"/>	09 Jan 2005
Niger	07 Jan 1985	ratification	19 Aug 2004	<input type="checkbox"/>	<input type="checkbox"/>	18 Sep 2004
Nigeria		accession	04 Apr 2007	<input type="checkbox"/>	<input type="checkbox"/>	04 May 2007
Niue		accession	19 Jun 2009	<input type="checkbox"/>	<input type="checkbox"/>	19 Jul 2009
^a Norway	26 Jan 1983	ratification	15 Aug 1985	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Oman		accession	11 Jun 2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11 Jul 2003
Pakistan		accession	12 Sep 2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12 Oct 2000
Palau		accession	24 Apr 2007	<input type="checkbox"/>	<input type="checkbox"/>	24 May 2007
Panama	18 Mar 1980	ratification	01 Apr 1999	<input type="checkbox"/>	<input type="checkbox"/>	01 May 1999
Paraguay	21 May 1980	ratification	06 Feb 1985	<input type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Peru		accession	11 Jan 1995	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10 Feb 1995
Philippines	19 May 1980	ratification	22 Sep 1981	<input type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Poland	06 Aug 1980	ratification	05 Oct 1983	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	08 Feb 1987
*, ^a Portugal	19 Sep 1984	ratification	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Qatar		accession	09 Mar 2004	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08 Apr 2004
Republic of Moldova		accession	07 May 1998	<input type="checkbox"/>	<input type="checkbox"/>	06 Jun 1998
Romania	15 Jan 1981	ratification	23 Nov 1993	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23 Dec 1993
Russian Federation	22 May 1980	ratification	25 May 1983	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	08 Feb 1987
Rwanda		accession	28 Jun 2002	<input type="checkbox"/>	<input type="checkbox"/>	28 Jul 2002
Saint Kitts and Nevis		accession	29 Aug 2008	<input type="checkbox"/>	<input type="checkbox"/>	28 Sep 2008
Saint Lucia		accession	14 Sep 2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14 Oct 2012
San Marino		accession	19 Jan 2015	<input type="checkbox"/>	<input type="checkbox"/>	18 Feb 2015
Saudi Arabia		accession	07 Jan 2009	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Feb 2009
Senegal		accession	03 Nov 2003	<input type="checkbox"/>	<input type="checkbox"/>	03 Dec 2003
Serbia		succession	05 Feb 2002	<input type="checkbox"/>	<input type="checkbox"/>	27 Apr 1992
Seychelles		accession	13 Aug 2003	<input type="checkbox"/>	<input type="checkbox"/>	12 Sep 2003
Singapore		accession	22 Sep 2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22 Oct 2014
Slovakia		succession	10 Feb 1993	<input type="checkbox"/>	<input type="checkbox"/>	01 Jan 1993
Slovenia		succession	07 Jul 1992	<input type="checkbox"/>	<input type="checkbox"/>	25 Jun 1991
South Africa	18 May 1981	ratification	17 Sep 2007	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17 Oct 2007
*, ^a Spain	07 Apr 1986	ratification	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
Sudan		accession	18 May 2000	<input type="checkbox"/>	<input type="checkbox"/>	17 Jun 2000
Swaziland		accession	17 Apr 2003	<input type="checkbox"/>	<input type="checkbox"/>	17 May 2003
^a Sweden	02 Jul 1980	ratification	01 Aug 1980	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
^a Switzerland	09 Jan 1987	ratification	09 Jan 1987	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Tajikistan		accession	11 Jul 1996	<input type="checkbox"/>	<input type="checkbox"/>	10 Aug 1996
The frmr. Yug. Rep. of Macedonia		succession	20 Sep 1996	<input type="checkbox"/>	<input type="checkbox"/>	17 Nov 1991
Togo		accession	07 Jun 2006	<input type="checkbox"/>	<input type="checkbox"/>	07 Jul 2006
Tonga		accession	24 Jan 2003	<input type="checkbox"/>	<input type="checkbox"/>	23 Feb 2003
Trinidad and Tobago		accession	25 Apr 2001	<input type="checkbox"/>	<input type="checkbox"/>	25 May 2001
Tunisia		accession	08 Apr 1993	<input type="checkbox"/>	<input type="checkbox"/>	08 May 1993
Turkey	23 Aug 1983	ratification	27 Feb 1985	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Turkmenistan		accession	07 Jan 2005	<input type="checkbox"/>	<input type="checkbox"/>	06 Feb 2005
Uganda		accession	10 Dec 2003	<input type="checkbox"/>	<input type="checkbox"/>	10 Jan 2004
Ukraine		accession	06 Jul 1993	<input type="checkbox"/>	<input type="checkbox"/>	05 Aug 1993
United Arab Emirates		accession	16 Oct 2003	<input type="checkbox"/>	<input type="checkbox"/>	15 Nov 2003
*, ^a United Kingdom	13 Jun 1980	ratification	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991
United Republic of Tanzania		accession	24 May 2006	<input type="checkbox"/>	<input type="checkbox"/>	23 Jun 2006
United States of America	03 Mar 1980	ratification	13 Dec 1982	<input type="checkbox"/>	<input type="checkbox"/>	08 Feb 1987
Uruguay		accession	24 Oct 2003	<input type="checkbox"/>	<input type="checkbox"/>	23 Nov 2003
Uzbekistan		accession	09 Feb 1998	<input type="checkbox"/>	<input type="checkbox"/>	11 Mar 1998
Viet Nam		accession	04 Oct 2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	03 Nov 2012
Yemen		accession	31 May 2007	<input type="checkbox"/>	<input type="checkbox"/>	30 Jun 2007
^a EURATOM	13 Jun 1980	confirmation	06 Sep 1991	<input checked="" type="checkbox"/>	<input type="checkbox"/>	06 Oct 1991

* signed/ratified as a EURATOM Member State
a Deposited an objection to the declaration of Pakistan

Amendment to the Convention on the Physical Protection of Nuclear Material

[Reproduced from GOV/INF/2005/10-GC(49)/INF/6,
6 September 2005]

Report by the Director General

[Eds...]

Amendment to the Convention on the Physical Protection of Nuclear Material

The Title of the Convention on the Physical Protection of Nuclear Material adopted on 26 October 1979 (hereinafter referred to as "the Convention") is replaced by the following title:

CONVENTION ON THE PHYSICAL PROTECTION OF
NUCLEAR MATERIAL AND NUCLEAR FACILITIES

The Preamble of the Convention is replaced by the following text:

THE STATES PARTIES TO THIS CONVENTION,

RECOGNIZING the right of all States to develop and apply nuclear energy for peaceful purposes and their legitimate interests in the potential benefits to be derived from the peaceful application of nuclear energy,

CONVINCED of the need to facilitate international co-operation and the transfer of nuclear technology for the peaceful application of nuclear energy,

BEARING IN MIND that physical protection is of vital importance for the protection of public health, safety, the environment and national and international security,

HAVING IN MIND the purposes and principles of the Charter of the United Nations concerning the maintenance of international peace and security and the promotion of good neighbourliness and friendly relations and co-operation among States,

CONSIDERING that under the terms of paragraph 4 of Article 2 of the Charter of the United Nations, "All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations,"

RECALLING the Declaration on Measures to Eliminate International Terrorism, annexed to General Assembly resolution 49/60 of 9 December 1994,

DESIRING to avert the potential dangers posed by illicit trafficking, the unlawful taking and use of nuclear material and the sabotage of nuclear material and nuclear facilities, and noting that physical protection against such acts has become a matter of increased national and international concern,

DEEPLY CONCERNED by the worldwide escalation of acts of terrorism in all its forms and manifestations, and by the threats posed by international terrorism and organized crime,

BELIEVING that physical protection plays an important role in supporting nuclear non-proliferation and counter-terrorism objectives,

DESIRING through this Convention to contribute to strengthening worldwide the physical protection of nuclear material and nuclear facilities used for peaceful purposes,

CONVINCED that offences relating to nuclear material and nuclear facilities are a matter of grave concern and that there is an urgent need to adopt appropriate and effective measures, or to strengthen existing measures, to ensure the prevention, detection and punishment of such offences,

DESIRING to strengthen further international co-operation to establish, in conformity with the national law of each State Party and with this Convention, effective measures for the physical protection of nuclear material and nuclear facilities,

CONVINCED that this Convention should complement the safe use, storage and transport of nuclear material and the safe operation of nuclear facilities,

RECOGNIZING that there are internationally formulated physical protection recommendations that are updated from time to time which can provide guidance on contemporary means of achieving effective levels of physical protection,

RECOGNIZING also that effective physical protection of nuclear material and nuclear facilities used for military purposes is a responsibility of the State possessing such nuclear material and nuclear facilities, and understanding that such material and facilities are and will continue to be accorded stringent physical protection,

HAVE AGREED as follows:

3. In Article 1 of the Convention, after paragraph I, two new paragraphs are added as follows:

(d) "nuclear facility" means a facility (including associated buildings and equipment) in which nuclear material is produced, processed, used, handled, stored or disposed of, if damage to or interference with such facility could lead to the release of significant amounts of radiation or radioactive material;

I "sabotage" means any deliberate act directed against a nuclear facility or nuclear material in use, storage or transport which could directly or indirectly endanger the health and safety of personnel, the public or the environment by exposure to radiation or release of radioactive substances.

4. After Article 1 of the Convention, a new Article 1A is added as follows:

Article 1A

The purposes of this Convention are to achieve and maintain worldwide effective physical protection of nuclear material used for peaceful purposes and of nuclear facilities used for peaceful purposes; to prevent and combat offences relating to such material and facilities worldwide; as well as to facilitate co-operation among States Parties to those ends.

5. Article 2 of the Convention is replaced by the following text:

1. This Convention shall apply to nuclear material used for peaceful purposes in use, storage and transport and to nuclear facilities used for peaceful purposes, provided, however, that articles 3 and 4 and paragraph 4 of article 5 of this Convention shall only apply to such nuclear material while in international nuclear transport.

2. The responsibility for the establishment, implementation and maintenance of a physical protection regime within a State Party rests entirely with that State.

3. Apart from the commitments expressly undertaken by States Parties under this Convention, nothing in this Convention shall be interpreted as affecting the sovereign rights of a State.

4. (a) Nothing in this Convention shall affect other rights, obligations and responsibilities of States Parties under international law, in particular the purposes and principles of the Charter of the United Nations and international humanitarian law.

(b) The activities of armed forces during an armed conflict, as those terms are understood under international humanitarian law, which are governed by that law, are not governed by this Convention, and the activities undertaken by the military forces of a State in the exercise of their official duties, inasmuch as they are governed by other rules of international law, are not governed by this Convention.

I Nothing in this Convention shall be construed as a lawful authorization to use or threaten to use force against nuclear material or nuclear facilities used for peaceful purposes.

(d) Nothing in this Convention condones or makes lawful otherwise unlawful acts, nor precludes prosecution under other laws.

5. This Convention shall not apply to nuclear material used or retained for military purposes or to a nuclear facility containing such material.

6. After Article 2 of the Convention, a new Article 2A is added as follows:

Article 2A

1. Each State Party shall establish, implement and maintain an appropriate physical protection regime applicable to nuclear material and nuclear facilities under its jurisdiction, with the aim of:

(a) protecting against theft and other unlawful taking of nuclear material in use, storage and transport;

(b) ensuring the implementation of rapid and comprehensive measures to locate and, where appropriate, recover missing or stolen nuclear material; when the material is located outside its territory, that State Party shall act in accordance with article 5;

(c) protecting nuclear material and nuclear facilities against sabotage; and

(d) mitigating or minimizing the radiological consequences of sabotage.

2. In implementing paragraph 1, each State Party shall:

(a) establish and maintain a legislative and regulatory framework to govern physical protection;

(b) establish or designate a competent authority or authorities responsible for the implementation of the legislative and regulatory framework; and

(c) take other appropriate measures necessary for the physical protection of nuclear material and nuclear facilities.

3. In implementing the obligations under paragraphs 1 and 2, each State Party shall, without prejudice to any other provisions of this Convention, apply insofar as is reasonable and practicable the following Fundamental Principles of Physical Protection of Nuclear Material and Nuclear Facilities.

FUNDAMENTAL PRINCIPLE A: *Responsibility of the State*

The responsibility for the establishment, implementation and maintenance of a physical protection regime within a State rests entirely with that State.

FUNDAMENTAL PRINCIPLE B: *Responsibilities During International Transport*

The responsibility of a State for ensuring that nuclear material is adequately protected extends to the international transport thereof, until that responsibility is properly transferred to another State, as appropriate.

FUNDAMENTAL PRINCIPLE C: *Legislative and Regulatory Framework*

The State is responsible for establishing and maintaining a legislative and regulatory framework to govern physical protection. This framework should provide for the establishment of applicable physical protection requirements and include a system of evaluation and licensing or other procedures to grant authorization. This framework should include a system of inspection of nuclear facilities and transport to verify compliance with applicable requirements and conditions of the license or other authorizing document, and to establish a means to enforce applicable requirements and conditions, including effective sanctions.

FUNDAMENTAL PRINCIPLE D: *Competent Authority*

The State should establish or designate a competent authority which is responsible for the implementation of the legislative and regulatory framework, and is provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities. The State should take steps to ensure an effective independence between the functions of the State's competent authority and those of any other body in charge of the promotion or utilization of nuclear energy.

FUNDAMENTAL PRINCIPLE E: *Responsibility of the License Holders*

The responsibilities for implementing the various elements of

physical protection within a State should be clearly identified. The State should ensure that the prime responsibility for the implementation of physical protection of nuclear material or of nuclear facilities rests with the holders of the relevant licenses or of other authorizing documents (e.g., operators or shippers).

FUNDAMENTAL PRINCIPLE F: *Security Culture*

All organizations involved in implementing physical protection should give due priority to the security culture, to its development and maintenance necessary to ensure its effective implementation in the entire organization.

FUNDAMENTAL PRINCIPLE G: *Threat*

The State's physical protection should be based on the State's current evaluation of the threat.

FUNDAMENTAL PRINCIPLE H: *Graded Approach*

Physical protection requirements should be based on a graded approach, taking into account the current evaluation of the threat, the relative attractiveness, the nature of the material and potential consequences associated with the unauthorized removal of nuclear material and with the sabotage against nuclear material or nuclear facilities.

FUNDAMENTAL PRINCIPLE I: *Defence in Depth*

The State's requirements for physical protection should reflect a concept of several layers and methods of protection (structural or other technical, personnel and organizational) that have to be overcome or circumvented by an adversary in order to achieve his objectives.

FUNDAMENTAL PRINCIPLE J: *Quality Assurance*

A quality assurance policy and quality assurance programmes should be established and implemented with a view to providing confidence that specified requirements for all activities important to physical protection are satisfied.

FUNDAMENTAL PRINCIPLE K: *Contingency Plans*

Contingency (emergency) plans to respond to unauthorized removal of nuclear material or sabotage of nuclear facilities or nuclear material, or attempts thereof, should be prepared and appropriately exercised by all license holders and authorities concerned.

FUNDAMENTAL PRINCIPLE L: *Confidentiality*

The State should establish requirements for protecting the confidentiality of information, the unauthorized disclosure of which could compromise the physical protection of nuclear material and nuclear facilities.

4. (a) The provisions of this article shall not apply to any nuclear material which the State Party reasonably decides does not need to be subject to the physical protection regime established pursuant to paragraph 1, taking into account the nature of the material, its quantity and relative attractiveness and the potential radiological and other consequences associated with any unauthorized act directed against it and the current evaluation of the threat against it.

(b) Nuclear material which is not subject to the provisions of this article pursuant to subparagraph (a) should be protected in accordance with prudent management practice.

7. Article 5 of the Convention is replaced by the following text:

1. States Parties shall identify and make known to each other directly or through the International Atomic Energy Agency their point of contact in relation to matters within the scope of this Convention.

2. In the case of theft, robbery or any other unlawful taking of nuclear material or credible threat thereof, States Parties shall, in accordance with their national law, provide co-operation and assistance to the maximum feasible extent in the recovery and protection of such material to any State that so requests. In particular:

(a) a State Party shall take appropriate steps to inform as soon as possible other States, which appear to it to be concerned, of any theft, robbery or other unlawful

taking of nuclear material or credible threat thereof, and to inform, where appropriate, the International Atomic Energy Agency and other relevant international organizations;

- (b) in doing so, as appropriate, the States Parties concerned shall exchange information with each other, the International Atomic Energy Agency and other relevant international organizations with a view to protecting threatened nuclear material, verifying the integrity of the shipping container or recovering unlawfully taken nuclear material and shall:
 - (i) co-ordinate their efforts through diplomatic and other agreed channels;
 - (ii) render assistance, if requested;
 - (iii) ensure the return of recovered nuclear material stolen or missing as a consequence of the above-mentioned events.

The means of implementation of this co-operation shall be determined by the States Parties concerned.

3. In the case of a credible threat of sabotage of nuclear material or a nuclear facility or in the case of sabotage thereof, States Parties shall, to the maximum feasible extent, in accordance with their national law and consistent with their relevant obligations under international law, cooperate as follows:

- (a) if a State Party has knowledge of a credible threat of sabotage of nuclear material or a nuclear facility in another State, the former shall decide on appropriate steps to be taken in order to inform that State as soon as possible and, where appropriate, the International Atomic Energy Agency and other relevant international organizations of that threat, with a view to preventing the sabotage;
- (b) in the case of sabotage of nuclear material or a nuclear facility in a State Party and if in its view other States are likely to be radiologically affected, the former, without prejudice to its other obligations under international law, shall take appropriate steps to inform as soon as possible the State or the States which are likely to be radiologically affected and to inform, where appropriate, the International Atomic Energy Agency and other relevant international organizations, with a view to minimizing or mitigating the radiological consequences thereof;
- (c) if in the context of sub-paragraphs (a) and (b), a State Party requests assistance, each State Party to which a request for assistance is directed shall promptly decide and notify the requesting State Party, directly or through the International Atomic Energy Agency, whether it is in a position to render the assistance requested and the scope and terms of the assistance that may be rendered;
- (d) co-ordination of the co-operation under sub-paragraphs (a) to (c) shall be through diplomatic or other agreed channels. The means of implementation of this cooperation shall be determined bilaterally or multilaterally by the States Parties concerned.

4. States Parties shall co-operate and consult, as appropriate, with each other directly or through the International Atomic Energy Agency and other relevant international organizations, with a view to obtaining guidance on the design, maintenance and improvement of systems of physical protection of nuclear material in international transport.

5. A State Party may consult and co-operate, as appropriate, with other States Parties directly or through the International Atomic Energy Agency and other relevant international organizations, with a view to obtaining their guidance on the design, maintenance and improvement of its national system of physical protection of nuclear material in domestic use, storage and transport and of nuclear facilities.

8. Article 6 of the Convention is replaced by the

following text:

1. States Parties shall take appropriate measures consistent with their national law to protect the confidentiality of any information which they receive in confidence by virtue of the provisions of this Convention from another State Party or through participation in an activity carried out for the implementation of this Convention. If States Parties provide information to international organizations or to States that are not parties to this Convention in confidence, steps shall be taken to ensure that the confidentiality of such information is protected. A State Party that has received information in confidence from another State Party may provide this information to third parties only with the consent of that other State Party.

2. States Parties shall not be required by this Convention to provide any information which they are not permitted to communicate pursuant to national law or which would jeopardize the security of the State concerned or the physical protection of nuclear material or nuclear facilities.

9. Paragraph 1 of Article 7 of the Convention is replaced by the following text:

- 1. The intentional commission of:
 - (a) an act without lawful authority which constitutes the receipt, possession, use, transfer, alteration, disposal or dispersal of nuclear material and which causes or is likely to cause death or serious injury to any person or substantial damage to property or to the environment;
 - (b) a theft or robbery of nuclear material;
 - (c) an embezzlement or fraudulent obtaining of nuclear material;
 - (d) an act which constitutes the carrying, sending, or moving of nuclear material into or out of a State without lawful authority;
 - (e) an act directed against a nuclear facility, or an act interfering with the operation of a nuclear facility, where the offender intentionally causes, or where he knows that the act is likely to cause, death or serious injury to any person or substantial damage to property or to the environment by exposure to radiation or release of radioactive substances, unless the act is undertaken in conformity with the national law of the State Party in the territory of which the nuclear facility is situated;
 - (f) an act constituting a demand for nuclear material by threat or use of force or by any other form of intimidation;
 - (g) a threat:
 - (i) to use nuclear material to cause death or serious injury to any person or substantial damage to property or to the environment or to commit the offence described in sub-paragraph I, or
 - (ii) to commit an offence described in sub-paragraphs (b) and I in order to compel a natural or legal person, international organization or State to do or to refrain from doing any act;
 - (h) an attempt to commit any offence described in sub-paragraphs (a) to I;
 - (i) an act which constitutes participation in any offence described in sub-paragraphs (a) to (h);
 - (j) an act of any person who organizes or directs others to commit an offence described in sub-paragraphs (a) to (h); and
 - (k) an act which contributes to the commission of any offence described in sub-paragraphs (a) to (h) by a group of persons acting with a common purpose; such act shall be intentional and shall either:
 - (i) be made with the aim of furthering the criminal activity or criminal purpose of the group, where such activity or purpose involves the commission of an offence described in sub-paragraphs (a) to (g), or

- (ii) be made in the knowledge of the intention of the group to commit an offence described in subparagraphs (a) to (g)

shall be made a punishable offence by each State Party under its national law.

10. After Article 11 of the Convention, two new articles, Article 11A and Article 11B, are added as follows:

Article 11A

None of the offences set forth in article 7 shall be regarded for the purposes of extradition or mutual legal assistance, as a political offence or as an offence connected with a political offence or as an offence inspired by political motives. Accordingly, a request for extradition or for mutual legal assistance based on such an offence may not be refused on the sole ground that it concerns a political offence or an offence connected with a political offence or an offence inspired by political motives.

Article 11B

Nothing in this Convention shall be interpreted as imposing an obligation to extradite or to afford mutual legal assistance, if the requested State Party has substantial grounds for believing that the request for extradition for offences set forth in article 7 or for mutual legal assistance with respect to such offences has been made for the purpose of prosecuting or punishing a person on account of that person's race, religion, nationality, ethnic origin or political opinion or that compliance with the request would cause prejudice to that person's position for any of these reasons.

11. After Article 13 of the Convention, a new Article 13A is added as follows:

Article 13A

Nothing in this Convention shall affect the transfer of nuclear technology for peaceful purposes that is undertaken to strengthen the physical protection of nuclear material and nuclear facilities.

12. Paragraph 3 of Article 14 of the Convention is replaced by the following text:

3. Where an offence involves nuclear material in domestic use, storage or transport, and both the alleged offender and the nuclear material remain in the territory of the State Party in which the offence was committed, or where an offence involves a nuclear facility and the alleged offender remains in the territory of the State Party in which the offence was

committed, nothing in this Convention shall be interpreted as requiring that State Party to provide information concerning criminal proceedings arising out of such an offence.

13. Article 16 of the Convention is replaced by the following text:

1. A conference of States Parties shall be convened by the depositary five years after the entry into force of the Amendment adopted on 8 July 2005 to review the implementation of this Convention and its adequacy as concerns the preamble, the whole of the operative part and the annexes in the light of the then prevailing situation.

2. At intervals of not less than five years thereafter, the majority of States Parties may obtain, by submitting a proposal to this effect to the depositary, the convening of further conferences with the same objective.

14. Footnote ^{bv} of Annex II of the Convention is replaced by the following text:

^{bv} Material not irradiated in a reactor or material irradiated in a reactor but with a radiation level equal to or less than 1 gray/hour (100 rads/hour) at one metre unshielded.

15. Footnote ^{ef} of Annex II of the Convention is replaced by the following text:

^{ef} Other fuel which by virtue of its original fissile material content is classified as Category and II before irradiation may be reduced one category level while the radiation level from the fuel exceeds 1 gray/hour (100 rads/hour) at one metre unshielded.

[Eds...]

**Status of Amendment to the Convention on
the Physical Protection of Nuclear Material**
[As at 18 February 2014]

Notes: Pursuant to Article 20, the amendment shall enter into force for each State Party that deposits its instrument of ratification, acceptance or approval of the amendment on the thirtieth day after the date on which two thirds of the States Party have deposited their instruments of ratification, acceptance or approval with the depositary: International Atomic Energy Agency

Contracting States: 91

Last change of status: 16 December 2015

Country/Organization	Signature	Instrument	Date of deposit	Declaration etc. / Withdrawal		Entry into force
Albania		ratification	26 Apr 2013	<input type="checkbox"/>	<input type="checkbox"/>	
Algeria		ratification	25 Apr 2007	<input type="checkbox"/>	<input type="checkbox"/>	
Antigua and Barbuda		ratification	17 Dec 2009	<input type="checkbox"/>	<input type="checkbox"/>	
Argentina		ratification	15 Nov 2011	<input type="checkbox"/>	<input type="checkbox"/>	
Armenia		ratification	22 May 2013	<input type="checkbox"/>	<input type="checkbox"/>	
Australia		ratification	17 Jul 2008	<input type="checkbox"/>	<input type="checkbox"/>	
Austria		ratification	18 Sep 2006	<input type="checkbox"/>	<input type="checkbox"/>	
Bahrain		acceptance	9 Jun 2010	<input type="checkbox"/>	<input type="checkbox"/>	
Belgium		ratification	22 Jan 2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Bosnia and Herzegovina		ratification	21 Jun 2010	<input type="checkbox"/>	<input type="checkbox"/>	
Botswana		ratification	15 Sep 2015	<input type="checkbox"/>	<input type="checkbox"/>	
Bulgaria		ratification	17 Mar 2006	<input type="checkbox"/>	<input type="checkbox"/>	
Burkina Faso		ratification	07 Aug 2014	<input type="checkbox"/>	<input type="checkbox"/>	
Canada		ratification	03 Dec 2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Chile		acceptance	12 Mar 2009	<input type="checkbox"/>	<input type="checkbox"/>	
China		ratification	14 Sep 2009	<input type="checkbox"/>	<input type="checkbox"/>	
Colombia		ratification	18 Feb 2014	<input type="checkbox"/>	<input type="checkbox"/>	
Croatia		approval	11 Sep 2006	<input type="checkbox"/>	<input type="checkbox"/>	
Cuba		ratification	16 Sep 2013	<input type="checkbox"/>	<input type="checkbox"/>	
Cyprus		acceptance	27 Feb 2013	<input type="checkbox"/>	<input type="checkbox"/>	
Czech Republic		acceptance	30 Dec 2010	<input type="checkbox"/>	<input type="checkbox"/>	
Denmark		approval	19 May 2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Djibouti		ratification	22 Apr 2014	<input type="checkbox"/>	<input type="checkbox"/>	

A – Formal Conventions

Dominic Republic	acceptance	22 Sep 2014	<input type="checkbox"/>	<input type="checkbox"/>
Estonia	ratification	24 Feb 2009	<input type="checkbox"/>	<input type="checkbox"/>
Fiji	approval	22 Jun 2008	<input type="checkbox"/>	<input type="checkbox"/>
Finland	acceptance	17 Jun 2011	<input type="checkbox"/>	<input type="checkbox"/>
France	approval	01 Feb 2013	<input type="checkbox"/>	<input type="checkbox"/>
Gabon	acceptance	20 Mar 2008	<input type="checkbox"/>	<input type="checkbox"/>
Georgia	acceptance	05 Apr 2012	<input type="checkbox"/>	<input type="checkbox"/>
Germany	ratification	21 Oct 2010	<input type="checkbox"/>	<input type="checkbox"/>
Ghana	ratification	12 Dec 2012	<input type="checkbox"/>	<input type="checkbox"/>
Greece	ratification	13 Dec 2011	<input type="checkbox"/>	<input type="checkbox"/>
Hungary	ratification	4 Dec 2008	<input type="checkbox"/>	<input type="checkbox"/>
Iceland	ratification	27 Oct 2015	<input type="checkbox"/>	<input type="checkbox"/>
India	ratification	19 Sep 2007	<input type="checkbox"/>	<input type="checkbox"/>
Indonesia	ratification	27 May 2010	<input type="checkbox"/>	<input type="checkbox"/>
Ireland	ratification	22 Sep 2014	<input type="checkbox"/>	<input type="checkbox"/>
Israel	ratification	16 Mar 2012	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Italy	ratification	08 Jul 2015	<input type="checkbox"/>	<input type="checkbox"/>
Jamaica	acceptance	10 Jan 2014	<input type="checkbox"/>	<input type="checkbox"/>
Japan	acceptance	27 Jun 2014	<input type="checkbox"/>	<input type="checkbox"/>
Jordan	acceptance	7 Oct 2009	<input type="checkbox"/>	<input type="checkbox"/>
Kazakhstan	ratification	26 Apr 2011	<input type="checkbox"/>	<input type="checkbox"/>
Kenya	acceptance	1 Aug 2007	<input type="checkbox"/>	<input type="checkbox"/>
Korea, Republic of	ratification	29 May 2014	<input type="checkbox"/>	<input type="checkbox"/>
Latvia	acceptance	23 Nov 2010	<input type="checkbox"/>	<input type="checkbox"/>
Lesotho	acceptance	18 Sep 2012	<input type="checkbox"/>	<input type="checkbox"/>
Libya	ratification	19 Jul 2006	<input type="checkbox"/>	<input type="checkbox"/>
Liechtenstein	ratification	13 Oct 2009	<input type="checkbox"/>	<input type="checkbox"/>
Lithuania	ratification	19 May 2009	<input type="checkbox"/>	<input type="checkbox"/>
Luxembourg	ratification	24 Feb 2012	<input type="checkbox"/>	<input type="checkbox"/>
Mali	acceptance	27 Jan 2010	<input type="checkbox"/>	<input type="checkbox"/>
Malta	acceptance	16 Sep 2013	<input type="checkbox"/>	<input type="checkbox"/>
Mauritania	ratification	28 Feb 2008	<input type="checkbox"/>	<input type="checkbox"/>
Mexico	ratification	1 Aug 2012	<input type="checkbox"/>	<input type="checkbox"/>
Morocco	ratification	10 Dec 2015	<input type="checkbox"/>	<input type="checkbox"/>
Nauru	approval	14 Jun 2010	<input type="checkbox"/>	<input type="checkbox"/>
Netherlands ¹	acceptance	17 Apr 2011	<input type="checkbox"/>	<input type="checkbox"/>
Niger	ratification	28 May 2009	<input type="checkbox"/>	<input type="checkbox"/>
Nigeria	ratification	4 May 2007	<input type="checkbox"/>	<input type="checkbox"/>
Norway	approval	20 Aug 2009	<input type="checkbox"/>	<input type="checkbox"/>
Peru	ratification	27 Mar 2014	<input type="checkbox"/>	<input type="checkbox"/>
Poland	ratification	1 Jun 2007	<input type="checkbox"/>	<input type="checkbox"/>
Portugal	ratification	26 Nov 2010	<input type="checkbox"/>	<input type="checkbox"/>
Qatar	ratification	11 Nov 2014	<input type="checkbox"/>	<input type="checkbox"/>
Rep. of Moldova	ratification	22 Dec 2008	<input type="checkbox"/>	<input type="checkbox"/>
Romania	ratification	6 Feb 2007	<input type="checkbox"/>	<input type="checkbox"/>
Russian Federation	acceptance	19 Sep 2008	<input type="checkbox"/>	<input type="checkbox"/>
Saint Lucia	acceptance	8 Nov 2012	<input type="checkbox"/>	<input type="checkbox"/>
San Marino	acceptance	18 Feb 2015	<input type="checkbox"/>	<input type="checkbox"/>
Saudi Arabia	acceptance	21 Jan 2011	<input type="checkbox"/>	<input type="checkbox"/>
Seychelles	acceptance	9 Jan 2006	<input type="checkbox"/>	<input type="checkbox"/>
Singapore	acceptance	22 Oct 2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Slovakia	ratification	07 Mar 2013	<input type="checkbox"/>	<input type="checkbox"/>
Slovenia	acceptance	1 Sep 2009	<input type="checkbox"/>	<input type="checkbox"/>
Spain	acceptance	9 Nov 2007	<input type="checkbox"/>	<input type="checkbox"/>
Sweden	ratification	23 March 2012	<input type="checkbox"/>	<input type="checkbox"/>
Switzerland	ratification	15 Oct 2008	<input type="checkbox"/>	<input type="checkbox"/>
Tajikistan	acceptance	10 Jul 2014	<input type="checkbox"/>	<input type="checkbox"/>
The fmr. Yug. Rep. of Macedonia	ratification	25 Nov 2011	<input type="checkbox"/>	<input type="checkbox"/>
Tunisia	acceptance	7 Jun 2010	<input type="checkbox"/>	<input type="checkbox"/>
Turkey	ratification	08 Jul 2015	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turkmenistan	acceptance	22 Sep 2005	<input type="checkbox"/>	<input type="checkbox"/>
Ukraine	ratification	24 Dec 2008	<input type="checkbox"/>	<input type="checkbox"/>
United Arab Emirates	acceptance	31 Jul 2009	<input type="checkbox"/>	<input type="checkbox"/>
United Kingdom ²	ratification	8 Apr 2010	<input type="checkbox"/>	<input type="checkbox"/>
United States of America	ratification	31 Jul 2015	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Uzbekistan	acceptance	07 Feb 2013	<input type="checkbox"/>	<input type="checkbox"/>
Viet Nam	ratification	3 Nov 2012	<input type="checkbox"/>	<input type="checkbox"/>
EURATOM	Accession	16 Dec 2015	<input checked="" type="checkbox"/>	<input type="checkbox"/>

¹ for the European part of the Netherlands² in respect of the United Kingdom of Great Britain and Northern Ireland and the Isle of Man

2005 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation

[Consolidated text of the 1998 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation and the Protocol of 2005 to the Convention]

Preamble to 2005 Protocol

THE STATE PARTIES to this Protocol

BEING PARTIES to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation done at Rome on 10 March 1988,

ACKNOWLEDGING that terrorist acts threaten international peace and security,

MINDFUL of resolution A.924 (22) of the Assembly of the International Maritime Organization requesting the revision of existing international legal and technical measures and the consideration of new measures in order to prevent and suppress terrorism against ships and to improve security aboard and ashore, and thereby to reduce the risk to passengers, crews and port personnel on board ships and in port areas and to vessels and their cargoes,

CONSCIOUS of the Declaration on Measures to Eliminate International Terrorism, annexed to United Nations General Assembly resolution 49/60 of 9 December 1994, in which, *inter alia*, the States Members of the United Nations solemnly reaffirm their unequivocal condemnation of all acts, methods and practices of terrorism as criminal and unjustifiable, wherever and by whomever committed, including those which jeopardize the friendly relations among States and peoples and threaten the territorial integrity and security of States,

NOTING United Nations General Assembly resolution 51/210 of 17 December 1996 and the Declaration to Supplement the 1994 Declaration on Measures to Eliminate International Terrorism annexed thereto,

RECALLING resolutions 1368 (2001) and 1373 (2001) of the United Nations Security Council, which reflect international will to combat terrorism in all its forms and manifestations, and which assigned tasks and responsibilities to States, and taking into account the continued threat from terrorist attacks,

RECALLING ALSO resolution 1540 (2004) of the United Nations Security Council, which recognizes the urgent need for all States to take additional effective measures to prevent the proliferation of nuclear, chemical or biological weapons and their means of delivery,

RECALLING FURTHER the Convention on Offences and Certain Other Acts Committed on Board Aircraft, done at Tokyo on 14 September 1963; the Convention for the Suppression of Unlawful Seizure of Aircraft, done at The Hague on 16 December 1970; the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, done at Montreal on 23 September 1971; the Convention on the Prevention and Punishment of Crimes against Internationally Protected Persons, including Diplomatic Agents, adopted by the General Assembly of the United Nations on 14 December 1973; the International Convention against the Taking of Hostages, adopted by the General Assembly of the United Nations on 17 December 1979; the Convention on the Physical Protection of Nuclear Material, done at Vienna on 26 October 1979 and amendments thereto adopted on 8 July 2005; the Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, supplementary to the Convention for the

Suppression of Unlawful Acts against the Safety of Civil Aviation, done at Montreal on 24 February 1988; the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf, done at Rome on 10 March 1988; the Convention on the Marking of Plastic Explosives for the Purpose of Detection, done at Montreal on 1 March 1991; the International Convention for the Suppression of Terrorist Bombings, adopted by the General Assembly of the United Nations on 15 December 1997; the International Convention for the Suppression of the Financing of Terrorism, adopted by the General Assembly of the United Nations on 9 December 1999, and the International Convention for the Suppression of Acts of Nuclear Terrorism adopted by the General Assembly of the United Nations on 13 April 2005,

BEARING IN MIND the importance of the United Nations Convention on the Law of the Sea done at Montego Bay, on 10 December 1982, and of the customary international law of the sea,

CONSIDERING resolution 59/46 of the United Nations General Assembly, which reaffirmed that international co-operation as well as actions by States to combat terrorism should be conducted in conformity with the principles of the Charter of the United Nations, international law and relevant international conventions, and resolution 59/24 of the United Nations General Assembly, which urged States to become parties to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation and its Protocol, invited States to participate in the review of those instruments by the Legal Committee of the International Maritime Organization to strengthen the means of combating such unlawful acts, including terrorist acts, and also urged States to take appropriate measures to ensure the effective implementation of those instruments, in particular through the adoption of legislation, where appropriate, aimed at ensuring that there is a proper framework for responses to incidents of armed robbery and terrorist acts at sea,

CONSIDERING ALSO the importance of the amendments to the International Convention for the Safety of Life at Sea, 1974, and of the International Ship and Port Facility Security (ISPS) Code, both adopted by the 2002 Conference of Contracting Governments to that Convention, in establishing an appropriate international technical framework involving co-operation between Governments, Government agencies, national and local administrations and the shipping and port industries to detect security threats and take preventative measures against security incidents affecting ships or port facilities used in international trade,

CONSIDERING FURTHER resolution 58/187 of the United Nations General Assembly, which reaffirmed that States must ensure that any measure taken to combat terrorism complies with their obligations under international law, in particular international human rights, refugee and humanitarian law,

BELIEVING that it is necessary to adopt provisions supplementary to those of the Convention, to suppress additional terrorist acts of violence against the safety and security of international maritime navigation and to improve its effectiveness,

HAVE AGREED as follows:

Article 1

1. For the purposes of this Convention:

- (a) "ship" means a vessel of any type whatsoever not permanently attached to the sea-bed,

- including dynamically supported craft, submersibles, or any other floating craft.
- (b) "transport" means to initiate, arrange or exercise effective control, including decision-making authority, over the movement of a person or item.
- (c) "serious injury or damage" means:
- (i) serious bodily injury; or
 - (ii) extensive destruction of a place of public use, State or government facility, infrastructure facility, or public transportation system, resulting in major economic loss; or
 - (iii) substantial damage to the environment, including air, soil, water, fauna, or flora.
- (d) "BCN weapon" means:
- (i) "biological weapons", which are:
 - (1) microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; or
 - (2) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.
 - (ii) "chemical weapons", which are, together or separately:
 - (1) toxic chemicals and their precursors, except where intended for:
 - (A) industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes; or
 - (B) protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons; or
 - (C) military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare; or
 - (D) law enforcement including domestic riot control purposes, as long as the types and quantities are consistent with such purposes;
 - (2) munitions and devices specifically designed to cause death or other harm through the toxic properties of those toxic chemicals specified in subparagraph (ii)(1), which would be released as a result of the employment of such munitions and devices;
 - (3) any equipment specifically designed for use directly in connection with the employment of munitions and devices specified in subparagraph (ii)(2).
 - (iii) nuclear weapons and other nuclear explosive devices.
- (e) "toxic chemical" means any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or of their method of production, and regardless of whether they are produced in facilities, in munitions or elsewhere.
- (f) "precursor" means any chemical reactant which takes part at any stage in the production by whatever method of a toxic chemical. This includes any key component of a binary or multicomponent chemical system.

- (g) "Organization" means the International Maritime Organization (IMO).
- (h) "Secretary-General" means the Secretary-General of the Organization.
2. For the purposes of this Convention:
- (a) the terms "place of public use", "State or government facility", "infrastructure facility", and "public transportation system" have the same meaning as given to those terms in the International Convention for the Suppression of Terrorist Bombings, done at New York on 15 December 1997; and
 - (b) the terms "source material" and "special fissionable material" have the same meaning as given to those terms in the Statute of the International Atomic Energy Agency (IAEA), done at New York on 26 October 1956.

Article 2

1. This Convention does not apply to:
 - (a) a warship; or
 - (b) a ship owned or operated by a State when being used as a naval auxiliary or for customs or police purposes; or
 - (c) a ship which has been withdrawn from navigation or laid up.
2. Nothing in this Convention affects the immunities of warships and other government ships operated for non-commercial purposes.

Article 2BIS

1. Nothing in this Convention shall affect other rights, obligations and responsibilities of States and individuals under international law, in particular the purposes and principles of the Charter of the United Nations and international human rights, refugee and humanitarian law.
2. This Convention does not apply to the activities of armed forces during an armed conflict, as those terms are understood under international humanitarian law, which are governed by that law, and the activities undertaken by military forces of a State in the exercise of their official duties, inasmuch as they are governed by other rules of international law.
3. Nothing in this Convention shall affect the rights, obligations and responsibilities under the Treaty on the Non-Proliferation of Nuclear Weapons, done at Washington, London and Moscow on 1 July 1968, the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, done at Washington, London and Moscow on 10 April 1972, or the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, done at Paris on 13 January 1993, of States Parties to such treaties.

Article 2

1. Any person commits an offence within the meaning of this Convention if that person unlawfully and intentionally:
 - (a) seizes or exercises control over a ship by force or threat thereof or any other form of intimidation; or
 - (b) performs an act of violence against a person on board a ship if that act is likely to endanger the safe navigation of that ship; or
 - (c) destroys a ship or causes damage to a ship or to its cargo which is likely to endanger the safe navigation of that ship; or
 - (d) places or causes to be placed on a ship, by any means whatsoever, a device or substance which is likely to destroy that ship, or cause damage to

- that ship or its cargo which endangers or is likely to endanger the safe navigation of that ship; or
- (e) destroys or seriously damages maritime navigational facilities or seriously interferes with their operation, if any such act is likely to endanger the safe navigation of a ship; or
 - (f) communicates information which that person knows to be false, thereby endangering the safe navigation of a ship.
2. Any person also commits an offence if that person threatens, with or without a condition, as is provided for under national law, aimed at compelling a physical or juridical person to do or refrain from doing any act, to commit any of the offences set forth in paragraphs 1 (b), (c), and (e), if that threat is likely to endanger the safe navigation of the ship in question.

Article 3BIS

1. Any person commits an offence within the meaning of this Convention if that person unlawfully and intentionally:
- (a) when the purpose of the act, by its nature or context, is to intimidate a population, or to compel a government or an international organization to do or to abstain from doing any act:
 - (i) uses against or on a ship or discharges from a ship any explosive, radioactive material or BCN weapon in a manner that causes or is likely to cause death or serious injury or damage; or
 - (ii) discharges, from a ship, oil, liquefied natural gas, or other hazardous or noxious substances, which is not covered by subparagraph (a)(i), in such quantity or concentration that causes or is likely to cause death or serious injury or damage; or
 - (iii) uses a ship in a manner that causes death or serious injury or damage; or
 - (iv) threatens, with or without a condition, as is provided for under national law, to commit an offence set forth in subparagraph (a)(i), (ii) or (iii); or
 - (b) transports on board a ship:
 - (i) any explosive or radioactive material, knowing that it is intended to be used to cause, or in a threat to cause, with or without a condition, as is provided for under national law, death or serious injury or damage for the purpose of intimidating a population, or compelling a government or an international organization to do or to abstain from doing any act; or
 - (ii) any BCN weapon, knowing it to be a BCN weapon as defined in article 1; or
 - (iii) any source material, special fissionable material, or equipment or material especially designed or prepared for the processing, use or production of special fissionable material, knowing that it is intended to be used in a nuclear explosive activity or in any other nuclear activity not under safeguards pursuant to an IAEA comprehensive safeguards agreement; or
 - (iv) any equipment, materials or software or related technology that significantly contributes to the design, manufacture or delivery of a BCN weapon, with the intention that it will be used for such purpose.
2. It shall not be an offence within the meaning of this Convention to transport an item or material covered by paragraph 1(b)(iii) or, insofar as it relates to a nuclear weapon or other nuclear explosive device, paragraph 1(b)(iv), if such item or material is transported to or from the territory of, or is otherwise transported under the control of, a State Party to the

Treaty on the Non-Proliferation of Nuclear Weapons where:

- (a) the resulting transfer or receipt, including internal to a State, of the item or material is not contrary to such State Party's obligations under the Treaty on the Non-Proliferation of Nuclear Weapons and,
- (b) if the item or material is intended for the delivery system of a nuclear weapon or other nuclear explosive device of a State Party to the Treaty on the Non-Proliferation of Nuclear Weapons, the holding of such weapon or device is not contrary to that State Party's obligations under that Treaty.

Article 3TER

Any person commits an offence within the meaning of this Convention if that person unlawfully and intentionally transports another person on board a ship knowing that the person has committed an act that constitutes an offence set forth in article 3, *3bis* or *3quater* or an offence set forth in any treaty listed in the Annex, and intending to assist that person to evade criminal prosecution.

Article 3QUATER

Any person also commits an offence within the meaning of this Convention if that person:

- (a) unlawfully and intentionally injures or kills any person in connection with the commission of any of the offences set forth in article 3, paragraph 1, article *3bis*, or article *3ter*; or
- (b) attempts to commit an offence set forth in article 3, paragraph 1, article *3bis*, paragraph 1(a)(i), (ii) or (iii), or subparagraph (a) of this article; or
- (c) participates as an accomplice in an offence set forth in article 3, article *3bis*, article *3ter*, or subparagraph (a) or (b) of this article; or
- (d) organizes or directs others to commit an offence set forth in article 3, article *3bis*, article *3ter*, or subparagraph (a) or (b) of this article; or
- (e) contributes to the commission of one or more offences set forth in article 3, article *3bis*, article *3ter* or subparagraph (a) or (b) of this article, by a group of persons acting with a common purpose, intentionally and either:
 - (i) with the aim of furthering the criminal activity or criminal purpose of the group, where such activity or purpose involves the commission of an offence set forth in article 3, *3bis* or *3ter*; or
 - (ii) in the knowledge of the intention of the group to commit an offence set forth in article 3, *3bis* or *3ter*.

Article 4

1. This Convention applies if the ship is navigating or is scheduled to navigate into, through or from waters beyond the outer limit of the territorial sea of a single State, or the lateral limits of its territorial sea with adjacent States.
2. In cases where the Convention does not apply pursuant to paragraph 1, it nevertheless applies when the offender or the alleged offender is found in the territory of a State Party other than the State referred to in paragraph 1.

Article 5

Each State Party shall make the offences set forth in articles 3, *3bis*, *3ter* and *3quater* punishable by appropriate penalties which take into account the grave nature of those offences.

Article 5BIS

1. Each State Party, in accordance with its domestic legal principles, shall take the necessary measures to

enable a legal entity located in its territory or organized under its laws to be held liable when a person responsible for management or control of that legal entity has, in that capacity, committed an offence set forth in this Convention. Such liability may be criminal, civil or administrative.

2. Such liability is incurred without prejudice to the criminal liability of individuals having committed the offences.
3. Each State Party shall ensure, in particular, that legal entities liable in accordance with paragraph 1 are subject to effective, proportionate and dissuasive criminal, civil or administrative sanctions. Such sanctions may include monetary sanctions.

Article 6

1. Each State Party shall take such measures as may be necessary to establish its jurisdiction over the offences set forth in articles 3, *3bis*, *3ter* and *3quater* when the offence is committed:
 - (a) against or on board a ship flying the flag of the State at the time the offence is committed; or
 - (b) in the territory of that State, including its territorial sea; or
 - (c) by a national of that State.
2. A State Party may also establish its jurisdiction over any such offence when:
 - (a) it is committed by a stateless person whose habitual residence is in that State; or
 - (b) during its commission a national of that State is seized, threatened, injured or killed; or
 - (c) it is committed in an attempt to compel that State to do or abstain from doing any act.
3. Any State Party which has established jurisdiction mentioned in paragraph 2 shall notify the Secretary-General. If such State Party subsequently rescinds that jurisdiction, it shall notify the Secretary-General.
4. Each State Party shall take such measures as may be necessary to establish its jurisdiction over the offences set forth in articles 3, *3bis*, *3ter* and *3quater* in cases where the alleged offender is present in its territory and it does not extradite the alleged offender to any of the States Parties which have established their jurisdiction in accordance with paragraphs 1 and 2 of this article.
5. This Convention does not exclude any criminal jurisdiction exercised in accordance with national law.

Article 7

1. Upon being satisfied that the circumstances so warrant, any State Party in the territory of which the offender or the alleged offender is present shall, in accordance with its law, take him into custody or take other measures to ensure his presence for such time as is necessary to enable any criminal or extradition proceedings to be instituted.
2. Such State shall immediately make a preliminary inquiry into the facts, in accordance with its own legislation.
3. Any person regarding whom the measures referred to in paragraph 1 are being taken shall be entitled to:
 - (a) communicate without delay with the nearest appropriate representative of the State of which he is a national or which is otherwise entitled to establish such communication or, if he is a stateless person, the State in the territory of which he has his habitual residence;
 - (b) be visited by a representative of that State.
4. The rights referred to in paragraph 3 shall be exercised in conformity with the laws and regulations of the State in the territory of which the offender or the alleged offender is present, subject to the proviso that the said laws and regulations must enable full effect to be given to the purposes for which the rights accorded under paragraph 3 are intended.

5. When a State Party, pursuant to this article, has taken a person into custody, it shall immediately notify the States which have established jurisdiction in accordance with article 6, paragraph 1 and, if it considers it advisable, any other interested States, of the fact that such person is in custody and of the circumstances which warrant his detention. The State which makes the preliminary inquiry contemplated in paragraph 2 of this article shall promptly report its findings to the said States and shall indicate whether it intends to exercise jurisdiction.

Article 8

1. The master of a ship of a State Party (the "flag State") may deliver to the authorities of any other State Party (the "receiving State") any person who the master has reasonable grounds to believe has committed an offence set forth in article 3, *3bis*, *3ter*, or *3quater*.
2. The flag State shall ensure that the master of its ship is obliged, whenever practicable, and if possible before entering the territorial sea of the receiving State carrying on board any person whom the master intends to deliver in accordance with paragraph 1, to give notification to the authorities of the receiving State of his intention to deliver such person and the reasons therefor.
3. The receiving State shall accept the delivery, except where it has grounds to consider that the Convention is not applicable to the acts giving rise to the delivery, and shall proceed in accordance with the provisions of article 7. Any refusal to accept a delivery shall be accompanied by a statement of the reasons for refusal.
4. The flag State shall ensure that the master of its ship is obliged to furnish the authorities of the receiving State with the evidence in the master's possession which pertains to the alleged offence.
5. A receiving State which has accepted the delivery of a person in accordance with paragraph 3 may, in turn, request the flag State to accept delivery of that person. The flag State shall consider any such request, and if it accedes to the request it shall proceed in accordance with article 7. If the flag State declines a request, it shall furnish the receiving State with a statement of the reasons therefor.

Article 8BIS

1. States Parties shall co-operate to the fullest extent possible to prevent and suppress unlawful acts covered by this Convention, in conformity with international law, and shall respond to requests pursuant to this article as expeditiously as possible.
2. Each request pursuant to this article should, if possible, contain the name of the suspect ship, the IMO ship identification number, the port of registry, the ports of origin and destination, and any other relevant information. If a request is conveyed orally, the requesting Party shall confirm the request in writing as soon as possible. The requested Party shall acknowledge its receipt of any written or oral request immediately.
3. States Parties shall take into account the dangers and difficulties involved in boarding a ship at sea and searching its cargo, and give consideration to whether other appropriate measures agreed between the States concerned could be more safely taken in the next port of call or elsewhere.
4. A State Party that has reasonable grounds to suspect that an offence set forth in article 3, *3bis*, *3ter* or *3quater* has been, is being or is about to be committed involving a ship flying its flag, may request the assistance of other States Parties in preventing or suppressing that offence. The States Parties so requested shall use their best endeavours to render such assistance within the means available to them.

5. Whenever law enforcement or other authorized officials of a State Party ("the requesting Party") encounter a ship flying the flag or displaying marks of registry of another State Party ("the first Party") located seaward of any State's territorial sea, and the requesting Party has reasonable grounds to suspect that the ship or a person on board the ship has been, is or is about to be involved in the commission of an offence set forth in article 3, *3bis*, *3ter* or *3quater*, and the requesting Party desires to board,
- (a) it shall request, in accordance with paragraphs 1 and 2 that the first Party confirm the claim of nationality, and
 - (b) if nationality is confirmed, the requesting Party shall ask the first Party (hereinafter referred to as "the flag State") for authorization to board and to take appropriate measures with regard to that ship which may include stopping, boarding and searching the ship, its cargo and persons on board, and questioning the persons on board in order to determine if an offence set forth in article 3, *3bis*, *3ter* or *3quater* has been, is being or is about to be committed, and
 - (c) the flag State shall either:
 - (i) authorize the requesting Party to board and to take appropriate measures set out in subparagraph (b), subject to any conditions it may impose in accordance with paragraph 7; or
 - (ii) conduct the boarding and search with its own law enforcement or other officials; or
 - (iii) conduct the boarding and search together with the requesting Party, subject to any conditions it may impose in accordance with paragraph 7; or
 - (iv) decline to authorize a boarding and search.

The requesting Party shall not board the ship or take measures set out in subparagraph (b) without the express authorization of the flag State.

- (d) Upon or after depositing its instrument of ratification, acceptance, approval or accession, a State Party may notify the Secretary-General that, with respect to ships flying its flag or displaying its mark of registry, the requesting Party is granted authorization to board and search the ship, its cargo and persons on board, and to question the persons on board in order to locate and examine documentation of its nationality and determine if an offence set forth in article 3, *3bis*, *3ter* or *3quater* has been, is being or is about to be committed, if there is no response from the first Party within four hours of acknowledgement of receipt of a request to confirm nationality.
- (e) Upon or after depositing its instrument of ratification, acceptance, approval or accession, a State Party may notify the Secretary-General that, with respect to ships flying its flag or displaying its mark of registry, the requesting Party is authorized to board and search a ship, its cargo and persons on board, and to question the persons on board in order to determine if an offence set forth in article 3, *3bis*, *3ter* or *3quater* has been, is being or is about to be committed.

The notifications made pursuant to this paragraph can be withdrawn at any time.

6. When evidence of conduct described in article 3, *3bis*, *3ter* or *3quater* is found as the result of any boarding conducted pursuant to this article, the flag State may authorize the requesting Party to detain the ship, cargo and persons on board pending receipt of disposition instructions from the flag State. The requesting Party shall promptly inform the flag State of the results of a boarding, search, and detention

conducted pursuant to this article. The requesting Party shall also promptly inform the flag State of the discovery of evidence of illegal conduct that is not subject to this Convention.

7. The flag State, consistent with the other provisions of this Convention, may subject its authorization under paragraph 5 or 6 to conditions, including obtaining additional information from the requesting Party, and conditions relating to responsibility for and the extent of measures to be taken. No additional measures may be taken without the express authorization of the flag State, except when necessary to relieve imminent danger to the lives of persons or where those measures derive from relevant bilateral or multilateral agreements.
8. For all boardings pursuant to this article, the flag State has the right to exercise jurisdiction over a detained ship, cargo or other items and persons on board, including seizure, forfeiture, arrest and prosecution. However, the flag State may, subject to its constitution and laws, consent to the exercise of jurisdiction by another State having jurisdiction under article 6.
9. When carrying out the authorized actions under this article, the use of force shall be avoided except when necessary to ensure the safety of its officials and persons on board, or where the officials are obstructed in the execution of the authorized actions. Any use of force pursuant to this article shall not exceed the minimum degree of force which is necessary and reasonable in the circumstances.
10. Safeguards:
 - (a) Where a State Party takes measures against a ship in accordance with this article, it shall:
 - (i) take due account of the need not to endanger the safety of life at sea;
 - (ii) ensure that all persons on board are treated in a manner which preserves their basic human dignity, and in compliance with the applicable provisions of international law, including international human rights law;
 - (iii) ensure that a boarding and search pursuant to this article shall be conducted in accordance with applicable international law;
 - (iv) take due account of the safety and security of the ship and its cargo;
 - (v) take due account of the need not to prejudice the commercial or legal interests of the flag State;
 - (vi) ensure, within available means, that any measure taken with regard to the ship or its cargo is environmentally sound under the circumstances;
 - (vii) ensure that persons on board against whom proceedings may be commenced in connection with any of the offences set forth in article 3, *3bis*, *3ter* or *3quater* are afforded the protections of paragraph 2 of article 10, regardless of location;
 - (viii) ensure that the master of a ship is advised of its intention to board, and is, or has been, afforded the opportunity to contact the ship's owner and the flag State at the earliest opportunity; and
 - (ix) take reasonable efforts to avoid a ship being unduly detained or delayed.
 - (b) Provided that authorization to board by a flag State shall not per se give rise to its liability, States Parties shall be liable for any damage, harm or loss attributable to them arising from measures taken pursuant to this article when:
 - (i) the grounds for such measures prove to be unfounded, provided that the ship has not committed any act justifying the measures taken; or

- (ii) such measures are unlawful or exceed those reasonably required in light of available information to implement the provisions of this article.
States Parties shall provide effective recourse in respect of such damage, harm or loss.
 - (c) Where a State Party takes measures against a ship in accordance with this Convention, it shall take due account of the need not to interfere with or to affect:
 - (i) the rights and obligations and the exercise of jurisdiction of coastal States in accordance with the international law of the sea; or
 - (ii) the authority of the flag State to exercise jurisdiction and control in administrative, technical and social matters involving the ship.
 - (d) Any measure taken pursuant to this article shall be carried out by law enforcement or other authorized officials from warships or military aircraft, or from other ships or aircraft clearly marked and identifiable as being on government service and authorized to that effect and, notwithstanding articles 2 and 2*bis*, the provisions of this article shall apply.
 - (e) For the purposes of this article, "law enforcement or other authorized officials" means uniformed or otherwise clearly identifiable members of law enforcement or other government authorities duly authorized by their government. For the specific purpose of law enforcement under this Convention, law enforcement or other authorized officials shall provide appropriate government-issued identification documents for examination by the master of the ship upon boarding.
11. This article does not apply to or limit boarding of ships conducted by any State Party in accordance with international law, seaward of any State's territorial sea, including boardings based upon the right of visit, the rendering of assistance to persons, ships and property in distress or peril, or an authorization from the flag State to take law enforcement or other action.
 12. States Parties are encouraged to develop standard operating procedures for joint operations pursuant to this article and consult, as appropriate, with other States Parties with a view to harmonizing such standard operating procedures for the conduct of operations.
 13. States Parties may conclude agreements or arrangements between them to facilitate law enforcement operations carried out in accordance with this article.
 14. Each State Party shall take appropriate measures to ensure that its law enforcement or other authorized officials, and law enforcement or other authorized officials of other States Parties acting on its behalf, are empowered to act pursuant to this article.
 15. Upon or after depositing its instrument of ratification, acceptance, approval or accession, each State Party shall designate the authority, or, where necessary, authorities to receive and respond to requests for assistance, for confirmation of nationality, and for authorization to take appropriate measures. Such designation, including contact information, shall be notified to the Secretary-General within one month of becoming a Party, who shall inform all other States Parties within one month of the designation. Each State Party is responsible for providing prompt notice through the Secretary-General of any changes in the designation or contact information.

Article 9

Nothing in this Convention shall affect in any way the rules of international law pertaining to the competence of States

to exercise investigative or enforcement jurisdiction on board ships not flying their flag.

Article 10

1. The State Party in the territory of which the offender or the alleged offender is found shall, in cases to which article 6 applies, if it does not extradite him, be obliged, without exception whatsoever and whether or not the offence was committed in its territory, to submit the case without delay to its competent authorities for the purpose of prosecution, through proceedings in accordance with the laws of that State. Those authorities shall take their decision in the same manner as in the case of any other offence of a grave nature under the law of that State.
2. Any person who is taken into custody, or regarding whom any other measures are taken or proceedings are being carried out pursuant to this Convention, shall be guaranteed fair treatment, including enjoyment of all rights and guarantees in conformity with the law of the State in the territory of which that person is present and applicable provisions of international law, including international human rights law.

Article 11

1. The offences set forth in articles 3, 3*bis*, 3*ter* and 3*quater* shall be deemed to be included as extraditable offences in any extradition treaty existing between any of the States Parties. States Parties undertake to include such offences as extraditable offences in every extradition treaty to be concluded between them.
2. If a State Party which makes extradition conditional on the existence of a treaty receives a request for extradition from another State Party with which it has no extradition treaty, the requested State Party may, at its option, consider this Convention as a legal basis for extradition in respect of the offences set forth in articles 3, 3*bis*, 3*ter* and 3*quater*. Extradition shall be subject to the other conditions provided by the law of the requested State Party.
3. States Parties which do not make extradition conditional on the existence of a treaty shall recognize the offences set forth in articles 3, 3*bis*, 3*ter* and 3*quater* as extraditable offences between themselves, subject to the conditions provided by the law of the requested State Party.
4. If necessary, the offences set forth in articles 3, 3*bis*, 3*ter* and 3*quater* shall be treated, for the purposes of extradition between States Parties, as if they had been committed not only in the place in which they occurred but also in a place within the jurisdiction of the State Party requesting extradition.
5. A State Party which receives more than one request for extradition from States which have established jurisdiction in accordance with article 6 and which decides not to prosecute shall, in selecting the State to which the offender or alleged offender is to be extradited, pay due regard to the interests and responsibilities of the State Party whose flag the ship was flying at the time of the commission of the offence.
6. In considering a request for the extradition of an alleged offender pursuant to this Convention, the requested State shall pay due regard to whether his rights as set forth in article 7, paragraph 3, can be effected in the requesting State.
7. With respect to the offences as defined in this Convention, the provisions of all extradition treaties and arrangements applicable between States Parties are modified as between States Parties to the extent that they are incompatible with this Convention.

Article 11BIS

None of the offences set forth in article 3, *3bis*, *3ter* or *3quater* shall be regarded for the purposes of extradition or mutual legal assistance as a political offence or as an offence connected with a political offence or as an offence inspired by political motives. Accordingly, a request for extradition or for mutual legal assistance based on such an offence may not be refused on the sole ground that it concerns a political offence or an offence connected with a political offence or an offence inspired by political motives.

Article 11TER

Nothing in this Convention shall be interpreted as imposing an obligation to extradite or to afford mutual legal assistance, if the requested State Party has substantial grounds for believing that the request for extradition for offences set forth in article 3, *3bis*, *3ter* or *3quater* or for mutual legal assistance with respect to such offences has been made for the purpose of prosecuting or punishing a person on account of that person's race, religion, nationality, ethnic origin, political opinion or gender, or that compliance with the request would cause prejudice to that person's position for any of these reasons.

Article 12

1. States Parties shall afford one another the greatest measure of assistance in connection with criminal proceedings brought in respect of the offences set forth in articles 3, *3bis*, *3ter* and *3quater*, including assistance in obtaining evidence at their disposal necessary for the proceedings.
2. States Parties shall carry out their obligations under paragraph 1 in conformity with any treaties on mutual assistance that may exist between them. In the absence of such treaties, States Parties shall afford each other assistance in accordance with their national law.

Article 12BIS

1. A person who is being detained or is serving a sentence in the territory of one State Party whose presence in another State Party is requested for purposes of identification, testimony or otherwise providing assistance in obtaining evidence for the investigation or prosecution of offences set forth in article 3, *3bis*, *3ter* or *3quater* may be transferred if the following conditions are met:
 - (a) the person freely gives informed consent; and
 - (b) the competent authorities of both States agree, subject to such conditions as those States may deem appropriate.
2. For the purposes of this article:
 - (a) the State to which the person is transferred shall have the authority and obligation to keep the person transferred in custody, unless otherwise requested or authorized by the State from which the person was transferred;
 - (b) the State to which the person is transferred shall without delay implement its obligation to return the person to the custody of the State from which the person was transferred as agreed beforehand, or as otherwise agreed, by the competent authorities of both States;
 - (c) the State to which the person is transferred shall not require the State from which the person was transferred to initiate extradition proceedings for the return of the person;
 - (d) the person transferred shall receive credit for service of the sentence being served in the State from which the person was transferred for time spent in the custody of the State to which the person was transferred.
3. Unless the State Party from which a person is to be transferred in accordance with this article so agrees,

that person, whatever that person's nationality, shall not be prosecuted or detained or subjected to any other restriction of personal liberty in the territory of the State to which that person is transferred in respect of acts or convictions anterior to that person's departure from the territory of the State from which such person was transferred.

Article 13

1. States Parties shall co-operate in the prevention of the offences set forth in articles 3, *3bis*, *3ter* and *3quater*, particularly by:
 - (a) taking all practicable measures to prevent preparation in their respective territories for the commission of those offences within or outside their territories;
 - (b) exchanging information in accordance with their national law, and co-ordinating administrative and other measures taken as appropriate to prevent the commission of offences set forth in articles 3, *3bis*, *3ter* and *3quater*.
2. When, due to the commission of an offence set forth in article 3, *3bis*, *3ter* or *3quater*, the passage of a ship has been delayed or interrupted, any State Party in whose territory the ship or passengers or crew are present shall be bound to exercise all possible efforts to avoid a ship, its passengers, crew or cargo being unduly detained or delayed.

Article 14

Any State Party having reason to believe that an offence set forth in article 3, *3bis*, *3ter* or *3quater* will be committed shall, in accordance with its national law, furnish as promptly as possible any relevant information in its possession to those States which it believes would be the States having established jurisdiction in accordance with article 6.

Article 15

1. Each State Party shall, in accordance with its national law, provide to the Secretary-General, as promptly as possible, any relevant information in its possession concerning:
 - (a) the circumstances of the offence;
 - (b) the action taken pursuant to article 13, paragraph 2;
 - (c) the measures taken in relation to the offender or the alleged offender and, in particular, the results of any extradition proceedings or other legal proceedings.
2. The State Party where the alleged offender is prosecuted shall, in accordance with its national law, communicate the final outcome of the proceedings to the Secretary-General.
3. The information transmitted in accordance with paragraphs 1 and 2 shall be communicated by the Secretary-General to all States Parties, to Members of the Organization, to other States concerned, and to the appropriate international intergovernmental organizations.

Article 16

1. Any dispute between two or more States Parties concerning the interpretation or application of this Convention which cannot be settled through negotiation within a reasonable time shall, at the request of one of them, be submitted to arbitration. If, within six months from the date of the request for arbitration, the parties are unable to agree on the organization of the arbitration, any one of those parties may refer the dispute to the International Court of Justice by request in conformity with the Statute of the Court.

2. Each State may at the time of signature or ratification, acceptance or approval of this Convention or accession thereto, declare that it does not consider itself bound by any or all of the provisions of paragraph 1. The other States Parties shall not be bound by those provisions with respect to any State Party which has made such a reservation.
3. Any State which has made a reservation in accordance with paragraph 2 may, at any time, withdraw that reservation by notification to the Secretary-General.

Article 16B/S. Final Clauses of the Convention

The final clauses of this Convention shall be articles 17 to 24 of the Protocol of 2005 to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation. References in this Convention to States Parties shall be taken to mean references to States Parties to that Protocol.

Article 17. Signature, ratification, acceptance, approval and accession

1. This Protocol shall be open for signature at the Headquarters of the Organization from 14 February 2006 to 13 February 2007 and shall thereafter remain open for accession.
2. States may express their consent to be bound by this Protocol by:
 - (a) signature without reservation as to ratification, acceptance or approval; or
 - (b) signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or
 - (c) accession.
3. Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General.
4. Only a State which has signed the Convention without reservation as to ratification, acceptance or approval, or has ratified, accepted, approved or acceded to the Convention may become a Party to this Protocol.

Article 18. Entry into force

1. This Protocol shall enter into force ninety days following the date on which twelve States have either signed it without reservation as to ratification, acceptance or approval, or have deposited an instrument of ratification, acceptance, approval or accession with the Secretary-General.
2. For a State which deposits an instrument of ratification, acceptance, approval or accession in respect of this Protocol after the conditions in paragraph 1 for entry into force thereof have been met, the ratification, acceptance, approval or accession shall take effect ninety days after the date of such deposit.

Article 19. Denunciation

1. This Protocol may be denounced by any State Party at any time after the date on which this Protocol enters into force for that State.
2. Denunciation shall be effected by the deposit of an instrument of denunciation with the Secretary-General.
3. A denunciation shall take effect one year, or such longer period as may be specified in the instrument of denunciation, after the deposit of the instrument with the Secretary-General.

Article 20. Revision and amendment

1. A conference for the purpose of revising or amending this Protocol may be convened by the Organization.

2. The Secretary-General shall convene a conference of States Parties to this Protocol for revising or amending the Protocol, at the request of one third of the States Parties, or ten States Parties, whichever is the higher figure.
3. Any instrument of ratification, acceptance, approval or accession deposited after the date of entry into force of an amendment to this Protocol shall be deemed to apply to the Protocol as amended.

Article 21. Declarations

1. Upon depositing its instrument of ratification, acceptance, approval or accession, a State Party which is not a party to a treaty listed in the Annex may declare that, in the application of this Protocol to the State Party, the treaty shall be deemed not to be included in article 3*ter*. The declaration shall cease to have effect as soon as the treaty enters into force for the State Party, which shall notify the Secretary-General of this fact.
2. When a State Party ceases to be a party to a treaty listed in the Annex, it may make a declaration as provided for in this article, with respect to that treaty.
3. Upon depositing its instrument of ratification, acceptance, approval or accession, a State Party may declare that it will apply the provisions of article 3*ter* in accordance with the principles of its criminal law concerning family exemptions of liability.

Article 22. Amendments to the Annex

1. The Annex may be amended by the addition of relevant treaties that:
 - (a) are open to the participation of all States;
 - (b) have entered into force; and
 - (c) have been ratified, accepted, approved or acceded to by at least twelve States Parties to this Protocol.
2. After the entry into force of this Protocol, any State Party thereto may propose such an amendment to the Annex. Any proposal for an amendment shall be communicated to the Secretary-General in written form. The Secretary-General shall circulate any proposed amendment that meets the requirements of paragraph 1 to all members of the Organization and seek from States Parties to this Protocol their consent to the adoption of the proposed amendment.
3. The proposed amendment to the Annex shall be deemed adopted after more than twelve of the States Parties to this Protocol consent to it by written notification to the Secretary-General.
4. The adopted amendment to the Annex shall enter into force thirty days after the deposit with the Secretary-General of the twelfth instrument of ratification, acceptance or approval of such amendment for those States Parties to this Protocol that have deposited such an instrument. For each State Party to this Protocol ratifying, accepting or approving the amendment after the deposit of the twelfth instrument with the Secretary-General, the amendment shall enter into force on the thirtieth day after deposit by such State Party of its instrument of ratification, acceptance or approval.

Article 23. Depositary

1. This Protocol and any amendments adopted under articles 20 and 22 shall be deposited with the Secretary-General.
2. The Secretary-General shall:
 - (a) inform all States which have signed this Protocol or acceded to this Protocol of:
 - (i) each new signature or deposit of an instrument of ratification, acceptance, approval or accession together with the date thereof;

- (ii) the date of the entry into force of this Protocol;
 - (iii) the deposit of any instrument of denunciation of this Protocol together with the date on which it is received and the date on which the denunciation takes effect;
 - (iv) any communication called for by any article of this Protocol;
 - (v) any proposal to amend the Annex which has been made in accordance with article 22, paragraph 2;
 - (vi) any amendment deemed to have been adopted in accordance with article 22, paragraph 3;
 - (vii) any amendment ratified, accepted or approved in accordance with article 22, paragraph 4, together with the date on which that amendment shall enter into force; and
- (b) transmit certified true copies of this Protocol to all States which have signed or acceded to this Protocol.
3. As soon as this Protocol enters into force, a certified true copy of the text shall be transmitted by the Secretary-General to the Secretary-General of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

Article 24. Languages

This Protocol is established in a single original in the Arabic, Chinese, English, French, Russian and Spanish languages, each text being equally authentic.

DONE AT LONDON this fourteenth day of October two thousand and five.

IN WITNESS WHEREOF the undersigned, being duly authorized by their respective Governments for that purpose, have signed this Protocol.

ANNEX

1. Convention for the Suppression of Unlawful Seizure of Aircraft, done at The Hague on 16 December 1970.
2. Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, done at Montreal on 23 September 1971.
3. Convention on the Prevention and Punishment of Crimes against Internationally Protected Persons, including Diplomatic Agents, adopted by the General Assembly of the United Nations on 14 December 1973.
4. International Convention against the Taking of Hostages, adopted by the General Assembly of the United Nations on 17 December 1979.
5. Convention on the Physical Protection of Nuclear Material, done at Vienna on 26 October 1979.
6. Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, supplementary to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, done at Montreal on 24 February 1988.
7. Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf, done at Rome on 10 March 1988.
8. International Convention for the Suppression of Terrorist Bombings, adopted by the General Assembly of the United Nations on 15 December 1997.
9. International Convention for the Suppression of the Financing of Terrorism, adopted by the General Assembly of the United Nations on 9 December 1999.

International Convention for the Suppression of Acts of Nuclear Terrorism

[United Nations, 2005]

The States Parties to this Convention,

(Eds.)[...]

Have agreed as follows:

Article 1

For the purposes of this Convention:

1. "Radioactive material" means nuclear material and other radioactive substances which contain nuclides which undergo spontaneous disintegration (a process accompanied by emission of one or more types of ionizing radiation, such as alpha-, beta-, neutron particles and gamma rays) and which may, owing to their radiological or fissile properties, cause death, serious bodily injury or substantial damage to property or to the environment.

2. "Nuclear material" means plutonium, except that with isotopic concentration exceeding 80 per cent in plutonium-238; uranium-233; uranium enriched in the isotope 235 or 233; uranium containing the mixture of isotopes as occurring in nature other than in the form of ore or ore residue; or any material containing one or more of the foregoing;

Whereby "uranium enriched in the isotope 235 or 233" means uranium containing the isotope 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature.

3. "Nuclear facility" means:

(a) Any nuclear reactor, including reactors installed on vessels, vehicles, aircraft or space objects for use as an energy source in order to propel such vessels, vehicles, aircraft or space objects or for any other purpose;

(b) Any plant or conveyance being used for the production, storage, processing or transport of radioactive material.

4. "Device" means:

(a) Any nuclear explosive device; or

(b) Any radioactive material dispersal or radiation-emitting device which may, owing to its radiological properties, cause death, serious bodily injury or substantial damage to property or to the environment.

5. "State or government facility" includes any permanent or temporary facility or conveyance that is used or occupied by representatives of a State, members of a Government, the legislature or the judiciary or by officials or employees of a State or any other public authority or entity or by employees or officials of an intergovernmental organization in connection with their official duties.

6. "Military forces of a State" means the armed forces of a State which are organized, trained and equipped under its internal law for the primary purpose of national defence or security and persons acting in support of those armed forces who are under their formal command, control and responsibility.

Article 2

1. Any person commits an offence within the meaning of this Convention if that person unlawfully and intentionally:

(a) Possesses radioactive material or makes or possesses a device:

(i) With the intent to cause death or serious bodily injury; or

(ii) With the intent to cause substantial damage to property or to the environment;

(b) Uses in any way radioactive material or a device, or uses or damages a nuclear facility in a manner which releases or risks the release of radioactive material:

(i) With the intent to cause death or serious bodily injury; or

(ii) With the intent to cause substantial damage to property or to the environment; or

(iii) With the intent to compel a natural or legal person,

an international organization or a State to do or refrain from doing an act.

2. Any person also commits an offence if that person:
 - (a) Threatens, under circumstances which indicate the credibility of the threat, to commit an offence as set forth in paragraph 1 (b) of the present article; or
 - (b) Demands unlawfully and intentionally radioactive material, a device or a nuclear facility by threat, under circumstances which indicate the credibility of the threat, or by use of force.
3. Any person also commits an offence if that person attempts to commit an offence as set forth in paragraph 1 of the present article.
4. Any person also commits an offence if that person:
 - (a) Participates as an accomplice in an offence as set forth in paragraph 1, 2 or 3 of the present article; or
 - (b) Organizes or directs others to commit an offence as set forth in paragraph 1, 2 or 3 of the present article; or
 - (c) In any other way contributes to the commission of one or more offences as set forth in paragraph 1, 2 or 3 of the present article by a group of persons acting with a common purpose; such contribution shall be intentional and either be made with the aim of furthering the general criminal activity or purpose of the group or be made in the knowledge of the intention of the group to commit the offence or offences concerned.

Article 3

This Convention shall not apply where the offence is committed within a single State, the alleged offender and the victims are nationals of that State, the alleged offender is found in the territory of that State and no other State has a basis under article 9, paragraph 1 or 2, to exercise jurisdiction, except that the provisions of articles 7, 12, 14, 15, 16 and 17 shall, as appropriate, apply in those cases.

Article 4

1. Nothing in this Convention shall affect other rights, obligations and responsibilities of States and individuals under international law, in particular the purposes and principles of the Charter of the United Nations and international humanitarian law.
2. The activities of armed forces during an armed conflict, as those terms are understood under international humanitarian law, which are governed by that law are not governed by this Convention, and the activities undertaken by military forces of a State in the exercise of their official duties, inasmuch as they are governed by other rules of international law, are not governed by this Convention.
3. The provisions of paragraph 2 of the present article shall not be interpreted as condoning or making lawful otherwise unlawful acts, or precluding prosecution under other laws.
4. This Convention does not address, nor can it be interpreted as addressing, in any way, the issue of the legality of the use or threat of use of nuclear weapons by States.

Article 5

Each State Party shall adopt such measures as may be necessary:

- (a) To establish as criminal offences under its national law the offences set forth in article 2;
- (b) To make those offences punishable by appropriate penalties which take into account the grave nature of these offences.

Article 6

Each State Party shall adopt such measures as may be necessary, including, where appropriate, domestic legislation, to ensure that criminal acts within the scope of this Convention, in particular where they are intended or calculated to provoke a state of terror in the general public or in a group of persons or particular persons, are under no circumstances justifiable by considerations of a political, philosophical, ideological, racial, ethnic, religious or other similar nature and are punished by

penalties consistent with their grave nature.

Article 7

1. States Parties shall cooperate by:
 - (a) Taking all practicable measures, including, if necessary, adapting their national law, to prevent and counter preparations in their respective territories for the commission within or outside their territories of the offences set forth in article 2, including measures to prohibit in their territories illegal activities of persons, groups and organizations that encourage, instigate, organize, knowingly finance or knowingly provide technical assistance or information or engage in the perpetration of those offences;
 - (b) Exchanging accurate and verified information in accordance with their national law and in the manner and subject to the conditions specified herein, and coordinating administrative and other measures taken as appropriate to detect, prevent, suppress and investigate the offences set forth in article 2 and also in order to institute criminal proceedings against persons alleged to have committed those crimes. In particular, a State Party shall take appropriate measures in order to inform without delay the other States referred to in article 9 in respect of the commission of the offences set forth in article 2 as well as preparations to commit such offences about which it has learned, and also to inform, where appropriate, international organizations.
2. States Parties shall take appropriate measures consistent with their national law to protect the confidentiality of any information which they receive in confidence by virtue of the provisions of this Convention from another State Party or through participation in an activity carried out for the implementation of this Convention. If States Parties provide information to international organizations in confidence, steps shall be taken to ensure that the confidentiality of such information is protected.
3. States Parties shall not be required by this Convention to provide any information which they are not permitted to communicate pursuant to national law or which would jeopardize the security of the State concerned or the physical protection of nuclear material.
4. States Parties shall inform the Secretary-General of the United Nations of their competent authorities and liaison points responsible for sending and receiving the information referred to in the present article. The Secretary-General of the United Nations shall communicate such information regarding competent authorities and liaison points to all States Parties and the International Atomic Energy Agency. Such authorities and liaison points must be accessible on a continuous basis.

Article 8

For purposes of preventing offences under this Convention, States Parties shall make every effort to adopt appropriate measures to ensure the protection of radioactive material, taking into account relevant recommendations and functions of the International Atomic Energy Agency.

Article 9

1. Each State Party shall take such measures as may be necessary to establish its jurisdiction over the offences set forth in article 2 when:
 - (a) The offence is committed in the territory of that State; or
 - (b) The offence is committed on board a vessel flying the flag of that State or an aircraft which is registered under the laws of that State at the time the offence is committed; or
 - (c) The offence is committed by a national of that State.
2. A State Party may also establish its jurisdiction over any such offence when:
 - (a) The offence is committed against a national of that State; or
 - (b) The offence is committed against a State or government facility of that State abroad, including an embassy or other diplomatic or consular premises of that State; or
 - (c) The offence is committed by a stateless person who has his or her habitual residence in the territory of that State; or
 - (d) The offence is committed in an attempt to compel that State to do or abstain from doing any act; or

(e) The offence is committed on board an aircraft which is operated by the Government of that State.

3. Upon ratifying, accepting, approving or acceding to this Convention, each State Party shall notify the Secretary-General of the United Nations of the jurisdiction it has established under its national law in accordance with paragraph 2 of the present article. Should any change take place, the State Party concerned shall immediately notify the Secretary-General.

4. Each State Party shall likewise take such measures as may be necessary to establish its jurisdiction over the offences set forth in article 2 in cases where the alleged offender is present in its territory and it does not extradite that person to any of the States Parties which have established their jurisdiction in accordance with paragraph 1 or 2 of the present article.

5. This Convention does not exclude the exercise of any criminal jurisdiction established by a State Party in accordance with its national law.

Article 10

1. Upon receiving information that an offence set forth in article 2 has been committed or is being committed in the territory of a State Party or that a person who has committed or who is alleged to have committed such an offence may be present in its territory, the State Party concerned shall take such measures as may be necessary under its national law to investigate the facts contained in the information.

2. Upon being satisfied that the circumstances so warrant, the State Party in whose territory the offender or alleged offender is present shall take the appropriate measures under its national law so as to ensure that person's presence for the purpose of prosecution or extradition.

3. Any person regarding whom the measures referred to in paragraph 2 of the present article are being taken shall be entitled:

(a) To communicate without delay with the nearest appropriate representative of the State of which that person is a national or which is otherwise entitled to protect that person's rights or, if that person is a stateless person, the State in the territory of which that person habitually resides;

(b) To be visited by a representative of that State;

(c) To be informed of that person's rights under subparagraphs (a) and (b).

4. The rights referred to in paragraph 3 of the present article shall be exercised in conformity with the laws and regulations of the State in the territory of which the offender or alleged offender is present, subject to the provision that the said laws and regulations must enable full effect to be given to the purposes for which the rights accorded under paragraph 3 are intended.

5. The provisions of paragraphs 3 and 4 of the present article shall be without prejudice to the right of any State Party having a claim to jurisdiction in accordance with article 9, paragraph 1 (c) or 2 (c), to invite the International Committee of the Red Cross to communicate with and visit the alleged offender.

6. When a State Party, pursuant to the present article, has taken a person into custody, it shall immediately notify, directly or through the Secretary-General of the United Nations, the States Parties which have established jurisdiction in accordance with article 9, paragraphs 1 and 2, and, if it considers it advisable, any other interested States Parties, of the fact that that person is in custody and of the circumstances which warrant that person's detention. The State which makes the investigation contemplated in paragraph 1 of the present article shall promptly inform the said States Parties of its findings and shall indicate whether it intends to exercise jurisdiction.

Article 11

1. The State Party in the territory of which the alleged offender is present shall, in cases to which article 9 applies, if it does not extradite that person, be obliged, without exception whatsoever and whether or not the offence was committed in its territory, to submit the case without undue delay to its competent authorities for the purpose of prosecution, through proceedings in accordance with the laws of that State. Those authorities shall

take their decision in the same manner as in the case of any other offence of a grave nature under the law of that State.

2. Whenever a State Party is permitted under its national law to extradite or otherwise surrender one of its nationals only upon the condition that the person will be returned to that State to serve the sentence imposed as a result of the trial or proceeding for which the extradition or surrender of the person was sought, and this State and the State seeking the extradition of the person agree with this option and other terms they may deem appropriate, such a conditional extradition or surrender shall be sufficient to discharge the obligation set forth in paragraph 1 of the present article.

Article 12

Any person who is taken into custody or regarding whom any other measures are taken or proceedings are carried out pursuant to this Convention shall be guaranteed fair treatment, including enjoyment of all rights and guarantees in conformity with the law of the State in the territory of which that person is present and applicable provisions of international law, including international law of human rights.

Article 13

1. The offences set forth in article 2 shall be deemed to be included as extraditable offences in any extradition treaty existing between any of the States Parties before the entry into force of this Convention. States Parties undertake to include such offences as extraditable offences in every extradition treaty to be subsequently concluded between them.

2. When a State Party which makes extradition conditional on the existence of a treaty receives a request for extradition from another State Party with which it has no extradition treaty, the requested State Party may, at its option, consider this Convention as a legal basis for extradition in respect of the offences set forth in article 2. Extradition shall be subject to the other conditions provided by the law of the requested State.

3. States Parties which do not make extradition conditional on the existence of a treaty shall recognize the offences set forth in article 2 as extraditable offences between themselves, subject to the conditions provided by the law of the requested State.

4. If necessary, the offences set forth in article 2 shall be treated, for the purposes of extradition between States Parties, as if they had been committed not only in the place in which they occurred but also in the territory of the States that have established jurisdiction in accordance with article 9, paragraphs 1 and 2.

5. The provisions of all extradition treaties and arrangements between States Parties with regard to offences set forth in article 2 shall be deemed to be modified as between States Parties to the extent that they are incompatible with this Convention.

Article 14

1. States Parties shall afford one another the greatest measure of assistance in connection with investigations or criminal or extradition proceedings brought in respect of the offences set forth in article 2, including assistance in obtaining evidence at their disposal necessary for the proceedings.

2. States Parties shall carry out their obligations under paragraph 1 of the present article in conformity with any treaties or other arrangements on mutual legal assistance that may exist between them. In the absence of such treaties or arrangements, States Parties shall afford one another assistance in accordance with their national law.

Article 15

None of the offences set forth in article 2 shall be regarded, for the purposes of extradition or mutual legal assistance, as a political offence or as an offence connected with a political offence or as an offence inspired by political motives. Accordingly, a request for extradition or for mutual legal assistance based on such an offence may not be refused on the sole ground that it concerns a political offence or an offence connected with a political offence or an offence inspired by political motives.

Article 16

Nothing in this Convention shall be interpreted as imposing an obligation to extradite or to afford mutual legal assistance if the requested State Party has substantial grounds for believing that the request for extradition for offences set forth in article 2 or for mutual legal assistance with respect to such offences has been made for the purpose of prosecuting or punishing a person on account of that person's race, religion, nationality, ethnic origin or political opinion or that compliance with the request would cause prejudice to that person's position for any of these reasons.

Article 17

1. A person who is being detained or is serving a sentence in the territory of one State Party whose presence in another State Party is requested for purposes of testimony, identification or otherwise providing assistance in obtaining evidence for the investigation or prosecution of offences under this Convention may be transferred if the following conditions are met:

- (a) The person freely gives his or her informed consent; and
- (b) The competent authorities of both States agree, subject to such conditions as those States may deem appropriate.

2. For the purposes of the present article:

- (a) The State to which the person is transferred shall have the authority and obligation to keep the person transferred in custody, unless otherwise requested or authorized by the State from which the person was transferred;
- (b) The State to which the person is transferred shall without delay implement its obligation to return the person to the custody of the State from which the person was transferred as agreed beforehand, or as otherwise agreed, by the competent authorities of both States;
- (c) The State to which the person is transferred shall not require the State from which the person was transferred to initiate extradition proceedings for the return of the person;
- (d) The person transferred shall receive credit for service of the sentence being served in the State from which he or she was transferred for time spent in the custody of the State to which he or she was transferred.

3. Unless the State Party from which a person is to be transferred in accordance with the present article so agrees, that person, whatever his or her nationality, shall not be prosecuted or detained or subjected to any other restriction of his or her personal liberty in the territory of the State to which that person is transferred in respect of acts or convictions anterior to his or her departure from the territory of the State from which such person was transferred.

Article 18

1. Upon seizing or otherwise taking control of radioactive material, devices or nuclear facilities, following the commission of an offence set forth in article 2, the State Party in possession of such items shall:

- (a) Take steps to render harmless the radioactive material, device or nuclear facility;
- (b) Ensure that any nuclear material is held in accordance with applicable International Atomic Energy Agency safeguards; and
- (c) Have regard to physical protection recommendations and health and safety standards published by the International Atomic Energy Agency.

2. Upon the completion of any proceedings connected with an offence set forth in article 2, or sooner if required by international law, any radioactive material, device or nuclear facility shall be returned, after consultations (in particular, regarding modalities of return and storage) with the States Parties concerned to the State Party to which it belongs, to the State Party of which the natural or legal person owning such radioactive material, device or facility is a national or resident, or to the State Party from whose territory it was stolen or otherwise unlawfully obtained.

3. (a) Where a State Party is prohibited by national or international law from returning or accepting such radioactive material, device or nuclear facility or where the States Parties concerned so agree, subject to paragraph 3(b) of the present

article, the State Party in possession of the radioactive material, devices or nuclear facilities shall continue to take the steps described in paragraph 1 of the present article; such radioactive material, devices or nuclear facilities shall be used only for peaceful purposes;

(b) Where it is not lawful for the State Party in possession of the radioactive material, devices or nuclear facilities to possess them, that State shall ensure that they are placed as soon as possible in the possession of a State for which such possession is lawful and which, where appropriate, has provided assurances consistent with the requirements of paragraph 1 of the present article in consultation with that State, for the purpose of rendering it harmless; such radioactive material, devices or nuclear facilities shall be used only for peaceful purposes.

4. If the radioactive material, devices or nuclear facilities referred to in paragraphs 1 and 2 of the present article do not belong to any of the States Parties or to a national or resident of a State Party or was not stolen or otherwise unlawfully obtained from the territory of a State Party, or if no State is willing to receive such items pursuant to paragraph 3 of the present article, a separate decision concerning its disposition shall, subject to paragraph 3 (b) of the present article, be taken after consultations between the States concerned and any relevant international organizations.

5. For the purposes of paragraphs 1, 2, 3 and 4 of the present article, the State Party in possession of the radioactive material, device or nuclear facility may request the assistance and cooperation of other States Parties, in particular the States Parties concerned, and any relevant international organizations, in particular the International Atomic Energy Agency. States Parties and the relevant international organizations are encouraged to provide assistance pursuant to this paragraph to the maximum extent possible.

6. The States Parties involved in the disposition or retention of the radioactive material, device or nuclear facility pursuant to the present article shall inform the Director General of the International Atomic Energy Agency of the manner in which such an item was disposed of or retained. The Director General of the International Atomic Energy Agency shall transmit the information to the other States Parties.

7. In the event of any dissemination in connection with an offence set forth in article 2, nothing in the present article shall affect in any way the rules of international law governing liability for nuclear damage, or other rules of international law.

Article 19

The State Party where the alleged offender is prosecuted shall, in accordance with its national law or applicable procedures, communicate the final outcome of the proceedings to the Secretary-General of the United Nations, who shall transmit the information to the other States Parties.

Article 20

States Parties shall conduct consultations with one another directly or through the Secretary-General of the United Nations, with the assistance of international organizations as necessary, to ensure effective implementation of this Convention.

Article 21

The States Parties shall carry out their obligations under this Convention in a manner consistent with the principles of sovereign equality and territorial integrity of States and that of non-intervention in the domestic affairs of other States.

Article 22

Nothing in this Convention entitles a State Party to undertake in the territory of another State Party the exercise of jurisdiction and performance of functions which are exclusively reserved for the authorities of that other State Party by its national law.

Article 23

1. Any dispute between two or more States Parties concerning the interpretation or application of this Convention which cannot be settled through negotiation within a reasonable

time shall, at the request of one of them, be submitted to arbitration. If, within six months of the date of the request for arbitration, the parties are unable to agree on the organization of the arbitration, any one of those parties may refer the dispute to the International Court of Justice, by application, in conformity with the Statute of the Court.

2. Each State may, at the time of signature, ratification, acceptance or approval of this Convention or accession thereto, declare that it does not consider itself bound by paragraph 1 of the present article. The other States Parties shall not be bound by paragraph 1 with respect to any State Party which has made such a reservation.

3. Any State which has made a reservation in accordance with paragraph 2 of the present article may at any time withdraw that reservation by notification to the Secretary-General of the United Nations.

Article 24

1. This Convention shall be open for signature by all States from 14 September 2005 until 31 December 2006 at United Nations Headquarters in New York.

2. This Convention is subject to ratification, acceptance or approval. The instruments of ratification, acceptance or approval shall be deposited with the Secretary-General of the United Nations.

3. This Convention shall be open to accession by any State. The instruments of accession shall be deposited with the Secretary-General of the United Nations.

Article 25

1. This Convention shall enter into force on the thirtieth day following the date of the deposit of the twenty-second instrument of ratification, acceptance, approval or accession with the Secretary-General of the United Nations.

2. For each State ratifying, accepting, approving or acceding to the Convention after the deposit of the twenty-second instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the thirtieth day after deposit by such State of its instrument of ratification, acceptance, approval or accession.

Article 26

1. A State Party may propose an amendment to this Convention. The proposed amendment shall be submitted to the depositary, who circulates it immediately to all States Parties.

2. If the majority of the States Parties request the depositary to convene a conference to consider the proposed amendments, the depositary shall invite all States Parties to attend such a conference to begin no sooner than three months after the invitations are issued.

3. The conference shall make every effort to ensure amendments are adopted by consensus. Should this not be possible, amendments shall be adopted by a two-thirds majority of all States Parties. Any amendment adopted at the conference shall be promptly circulated by the depositary to all States Parties.

4. The amendment adopted pursuant to paragraph 3 of the present article shall enter into force for each State Party that deposits its instrument of ratification, acceptance, accession or approval of the amendment on the thirtieth day after the date on which two thirds of the States Parties have deposited their relevant instrument. Thereafter, the amendment shall enter into force for any State Party on the thirtieth day after the date on which that State deposits its relevant instrument.

Article 27

1. Any State Party may denounce this Convention by written notification to the Secretary-General of the United Nations.

2. Denunciation shall take effect one year following the date on which notification is received by the Secretary-General of the United Nations.

Article 28

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to all States.

IN WITNESS WHEREOF, the undersigned, being duly authorized thereto by their respective Governments, have signed this Convention, opened for signature at United Nations Headquarters in New York on 14 September 2005.

Status of the International Convention for the Suppression of Acts of Nuclear Terrorism

[Status as at 12 November 2015]

Participant	Signature, Succession to signature(d)	Approval(AA), Acceptance(A), Accession(a), Ratification
Afghanistan	29 Dec 2005	25 Mar 2013
Albania	23 Nov 2005	
Algeria		3 Mar 2011 a
Andorra	11 May 2006	
Antigua and Barbuda		1 Dec 2009 a
Argentina	14 Sep 2005	
Armenia	15 Sep 2005	22 Sep 2010
Australia	14 Sep 2005	16 Mar 2012
Austria	15 Sep 2005	14 Sep 2006
Azerbaijan	15 Sep 2005	28 Jan 2009
Bahrain		4 May 2010 a
Bangladesh		7 Jun 2007 a
Belarus	15 Sep 2005	13 Mar 2007
Belgium	14 Sep 2005	2 Oct 2009
Benin	15 Sep 2005	
Bosnia and Herzegovina	7 Dec 2005	
Brazil	16 Sep 2005	25 Sep 2009
Bulgaria	14 Sep 2005	
Burkina Faso	21 Sep 2005	
Burundi	29 Mar 2006	24 Sep 2008
Cambodia	7 Dec 2006	
Canada	14 Sep 2005	21 Nov 2013
Central African Republic		19 Feb 2008 a
Chile	22 Sep 2005	27 Sep 2010
China (1)	14 Sep 2005	8 Nov 2010
Colombia	1 Nov 2006	
Comoros		12 Mar 2007 a
Costa Rica	15 Sep 2005	21 Feb 2013
Côte d'Ivoire		12 Mar 2012 a
Croatia	16 Sep 2005	30 May 2007
Cuba		17 Jun 2009 a

A – Formal Conventions

Cyprus	15 Sep 2005	28 Jan 2008
Czech Republic	15 Sep 2005	25 Jul 2006
Democratic Republic of the Congo		23 Sep 2010 a
Denmark (2)	14 Sep 2005	20 Mar 2007
Djibouti	14 Jun 2006	
Dominican Republic		11 Jun 2008 a
Ecuador	15 Sep 2005	
Egypt	20 Sep 2005	
El Salvador	16 Sep 2005	27 Nov 2006
Estonia	14 Sep 2005	
Fiji		15 May 2008 a
Finland	14 Sep 2005	13 Jan 2009 A
France	14 Sep 2005	11 Sep 2013
Gabon	15 Sep 2005	1 Oct 2007
Georgia		23 Apr 2010 a
Germany	15 Sep 2005	8 Feb 2008
Ghana	6 Nov 2006	
Greece	15 Sep 2005	
Guatemala	20 Sep 2005	
Guinea	16 Sep 2005	
Guinea-Bissau		6 Aug 2008 a
Guyana	15 Sep 2005	
Hungary	14 Sep 2005	12 Apr 2007
Iceland	16 Sep 2005	
India	24 Jul 2006	1 Dec 2006
Iraq		13 May 2013 a
Ireland	15 Sep 2005	
Israel	27 Dec 2006	
Italy	14 Sep 2005	
Jamaica	5 Dec 2006	27 Dec 2013
Japan	15 Sep 2005	3 Aug 2007 A
Jordan	16 Nov 2005	
Kazakhstan	16 Sep 2005	31 Jul 2008
Kenya	15 Sep 2005	13 Apr 2006
Kiribati	15 Sep 2005	26 Sep 2008
Kuwait	16 Sep 2005	5 Sep 2013
Kyrgyzstan	5 May 2006	2 Oct 2007
Latvia	16 Sep 2005	25 Jul 2006
Lebanon	23 Sep 2005	13 Nov 2006
Lesotho	16 Sep 2005	22 Sep 2010
Liberia	16 Sep 2005	
Libya	16 Sep 2005	22 Dec 2008
Liechtenstein	16 Sep 2005	25 Sep 2009
Lithuania	16 Sep 2005	19 Jul 2007
Luxembourg	15 Sep 2005	2 Oct 2008
Madagascar	15 Sep 2005	

Malawi		7 Oct 2009 a
Malaysia	16 Sep 2005	
Mali		5 Nov 2009 a
Malta	15 Sep 2005	26 Sep 2012
Mauritania		28 Apr 2008 a
Mauritius	14 Sep 2005	
Mexico	12 Jan 2006	27 Jun 2006
Monaco	14 Sep 2005	
Mongolia	3 Nov 2005	6 Oct 2006
Montenegro (3)	23 Oct 2006 d	
Morocco	19 Apr 2006	31 Mar 2010
Mozambique	1 May 2006	
Nauru		24 Aug 2010 a
Netherlands	16 Sep 2005	30 Jun 2010 A
New Zealand	14 Sep 2005	
Nicaragua	15 Sep 2005	25 Feb 2009
Niger		2 Jul 2008 a
Nigeria		25 Sep 2012 a
Norway	16 Sep 2005	
Palau	15 Sep 2005	
Panama	21 Feb 2006	21 Jun 2007
Paraguay	16 Sep 2005	29 Jan 2009
Peru	14 Sep 2005	29 May 2009
Philippines	15 Sep 2005	
Poland	14 Sep 2005	8 Apr 2010
Portugal	21 Sep 2005	
Qatar	16 Feb 2006	15 Jan 2014
Republic of Korea	16 Sep 2005	
Republic of Moldova	16 Sep 2005	18 Apr 2008
Romania	14 Sep 2005	24 Jan 2007
Russian Federation	14 Sep 2005	29 Jan 2007
Rwanda	6 Mar 2006	
San Marino		16 Dec 2014 a
Sao Tome and Principe	19 Dec 2005	
Saudi Arabia	26 Dec 2006	7 Dec 2007
Senegal	21 Sep 2005	
Serbia	15 Sep 2005	26 Sep 2006
Seychelles	7 Oct 2005	
Sierra Leone	14 Sep 2005	
Singapore	1 Dec 2006	
Slovakia	15 Sep 2005	23 Mar 2006
Slovenia	14 Sep 2005	17 Dec 2009
Solomon Islands		24 Sep 2009 a
South Africa	14 Sep 2005	9 May 2007
Spain	14 Sep 2005	22 Feb 2007
Sri Lanka	14 Sep 2005	27 Sep 2007

St. Lucia		12 Nov 2012 a
St. Vincent and the Grenadines		8 Jul 2010 a
Swaziland	15 Sep 2005	
Sweden	14 Sep 2005	
Switzerland	14 Sep 2005	15 Oct 2008
Syrian Arab Republic	14 Sep 2005	
Tajikistan	14 Sep 2005	
Thailand	14 Sep 2005	
The former Yugoslav Republic of Macedonia	16 Sep 2005	19 Mar 2007
Timor-Leste	16 Sep 2005	
Togo	15 Sep 2005	
Tunisia		28 Sep 2010 a
Turkey	14 Sep 2005	24 Sep 2012
Turkmenistan		28 Mar 2008 a
Ukraine	14 Sep 2005	25 Sep 2007
United Arab Emirates		10 Jan 2008 a
United Kingdom of Great Britain and Northern Ireland	14 Sep 2005	24 Sep 2009
United States of America	14 Sep 2005	
Uruguay	16 Sep 2005	
Uzbekistan		29 Apr 2008 a
Yemen		13 Oct 2014 a

For a full list of declarations, reservations, objections and notifications see:
https://treaties.un.org/Pages/ViewDetailsIII.aspx?&src=UNTSO_NLINE&mtmsg_no=XVIII-15&chapter=18&Temp=mtmsg3&lang=en#2.

**Protocol of 2005 to the Protocol for the
Suppression of Unlawful Acts against the
Safety of Fixed Platforms located on the
Continental Shelf**

[Adopted in London, 14 October 2005]

THE STATES PARTIES to this Protocol,

BEING PARTIES to the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf done at Rome on 10 March 1988,

RECOGNIZING that the reasons for which the Protocol of 2005 to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation was elaborated also apply to fixed platforms located on the continental shelf,

TAKING account of the provisions of those Protocols,

HAVE AGREED as follows:

ARTICLE 1

For the purposes of this Protocol:

1 "1988 Protocol" means the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf, done at Rome on 10 March 1988.

2 "Organization" means the International Maritime Organization.

3 "Secretary-General" means the Secretary-General of the Organization.

ARTICLE 2

Article 1, paragraph 1, of the 1988 Protocol is replaced by the following text:

- 1 The provisions of article 1, paragraphs 1(c), (d), (e), (f), (g), (h) and 2(a), of articles 2*bis*, 5, 5*bis* and 7, and of articles 10 to 16, including articles 11*bis*, 11*ter* and 12*bis*, of the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation, as amended by the Protocol of 2005 to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation, shall also apply *mutatis mutandis* to the offences set forth in articles 2, 2*bis* and 2*ter* of this Protocol where such offences are committed on board or against fixed platforms located on the continental shelf.

ARTICLE 3

1 Article 2, paragraph 1(d) of the 1988 Protocol is replaced by the following text:

- (d) places or causes to be placed on a fixed platform, by any means whatsoever, a device or substance which is likely to destroy that fixed platform or likely to endanger its safety.

2 Article 2, paragraph 1(e) of the 1988 Protocol is deleted.

3 Article 2, paragraph 2 of the 1988 Protocol is replaced by the following text:

- 2 Any person also commits an offence if that person threatens, with or without a condition, as is provided for under national law, aimed at compelling a physical or juridical person to do or refrain from doing any act, to commit any of the offences set forth in paragraphs 1(b) and (c), if that threat is likely to endanger the safety of the fixed platform.

ARTICLE 4

1 The following text is inserted as article 2*bis*:

Article 2*bis*

Any person commits an offence within the meaning of this Protocol if that person unlawfully and intentionally, when the purpose of the act, by its nature or context, is to intimidate a population, or to compel a government or an international organization to do or to abstain from doing any act:

- (a) uses against or on a fixed platform or discharges from a fixed platform any explosive, radioactive material or BCN weapon in a manner that causes or is likely to cause death or serious injury or damage; or
- (b) discharges, from a fixed platform, oil, liquefied natural gas, or other hazardous or noxious substance, which is not covered by subparagraph (a), in such quantity or concentration that causes or is likely to cause death or serious injury or damage; or
- (c) threatens, with or without a condition, as is provided for under national law, to commit an offence set forth in subparagraph (a) or (b).

2 The following text is inserted as Article 2ter:

Article 2ter

Any person also commits an offence within the meaning of this Protocol if that person:

- (a) unlawfully and intentionally injures or kills any person in connection with the commission of any of the offences set forth in article 2, paragraph 1, or article 2bis; or
- (b) attempts to commit an offence set forth in article 2, paragraph 1, article 2bis, subparagraph (a) or (b), or subparagraph (a) of this article; or
- (c) participates as an accomplice in an offence set forth in article 2, article 2bis or subparagraph (a) or (b) of this article; or
- (d) organizes or directs others to commit an offence set forth in article 2, article 2bis or subparagraph (a) or (b) of this article; or
- (e) contributes to the commission of one or more offences set forth in article 2, article 2bis or subparagraph (a) or (b) of this article, by a group of persons acting with a common purpose, intentionally and either:
 - (i) with the aim of furthering the criminal activity or criminal purpose of the group, where such activity or purpose involves the commission of an offence set forth in article 2 or 2bis; or
 - (ii) in the knowledge of the intention of the group to commit an offence set forth in article 2 or 2bis.

ARTICLE 5

1 Article 3, paragraph 1 of the 1988 Protocol is replaced by the following text:

- 1 Each State Party shall take such measures as may be necessary to establish its jurisdiction over the offences set forth in articles 2, 2bis and 2ter when the offence is committed:
 - (a) against or on board a fixed platform while it is located on the continental shelf of that State; or
 - (b) by a national of that State.

2 Article 3, paragraph 3 of the 1988 Protocol is replaced by the following text:

- 3 Any State Party which has established jurisdiction mentioned in paragraph 2 shall notify the Secretary-General. If such State Party subsequently rescinds that jurisdiction, it shall notify the Secretary-General.

3 Article 3, paragraph 4 of the 1988 Protocol is replaced by the following text:

- 4 Each State Party shall take such measures as may be necessary to establish its jurisdiction over the offences set forth in articles 2, 2bis and 2ter in cases where the alleged offender is present in its territory and it does not extradite the alleged offender to any of the States Parties which have established their jurisdiction in accordance with paragraphs 1 and 2.

ARTICLE 6

Interpretation and application

- 1 The 1988 Protocol and this Protocol shall, as between the Parties to this Protocol, be read and interpreted together as one single instrument.
- 2 Articles 1 to 4 of the 1988 Protocol, as revised by this Protocol, together with articles 8 to 13 of this

Protocol shall constitute and be called the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf, 2005 (2005 SUA Fixed Platforms Protocol).

ARTICLE 7

The following text is added as article 4bis of the Protocol:

Final clauses of the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf, 2005

The final clauses of the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf, 2005, shall be articles 8 to 13 of the Protocol of 2005 to the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf. References in this Protocol to States Parties shall be taken to mean references to States Parties to the 2005 Protocol.

FINAL CLAUSES

ARTICLE 8

Signature, ratification, acceptance, approval and accession

- 1 This Protocol shall be open for signature at the Headquarters of the Organization from 14 February 2006 to 13 February 2007 and shall thereafter remain open for accession.
- 2 States may express their consent to be bound by this Protocol by:
 - (a) signature without reservation as to ratification, acceptance or approval; or
 - (b) signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or
 - (c) accession.
- 3 Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General.
- 4 Only a State which has signed the 1988 Protocol without reservation as to ratification, acceptance or approval, or has ratified, accepted, approved or acceded to the 1988 Protocol may become a Party to this Protocol.

ARTICLE 9

Entry into force

- 1 This Protocol shall enter into force ninety days following the date on which three States have either signed it without reservation as to ratification, acceptance or approval, or have deposited an instrument of ratification, acceptance, approval or accession with the Secretary-General. However, this Protocol shall not enter into force before the Protocol of 2005 to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation has entered into force.
- 2 For a State which deposits an instrument of ratification, acceptance, approval or accession in respect of this Protocol after the conditions in paragraph 1 for entry into force thereof have been met, the ratification, acceptance, approval or accession shall take effect ninety days after the date of such deposit.

ARTICLE 10

Denunciation

- 1 This Protocol may be denounced by any State Party at any time after the date on which this Protocol enters into force for that State.
- 2 Denunciation shall be effected by the deposit of an instrument of denunciation with the Secretary-General.
- 3 A denunciation shall take effect one year, or such longer period as may be specified in the instrument of denunciation, after the deposit of the instrument with the Secretary-General.

ARTICLE 11**Revision and amendment**

- 1 A conference for the purpose of revising or amending this Protocol may be convened by the Organization.
- 2 The Secretary-General shall convene a conference of States Parties to this Protocol for revising or amending the Protocol, at the request of one third of the States Parties, or five States Parties, whichever is the higher figure.
- 3 Any instrument of ratification, acceptance, approval or accession deposited after the date of entry into force of an amendment to this Protocol shall be deemed to apply to the Protocol as amended.

ARTICLE 12**Depositary**

- 1 This Protocol and any amendments adopted under article 11 shall be deposited with the Secretary-General.
- 2 The Secretary-General shall:
 - (a) inform all States which have signed this Protocol or acceded to this Protocol of:
 - (i) each new signature or deposit of an instrument of ratification, acceptance, approval or accession together with the date thereof;
 - (ii) the date of the entry into force of this Protocol;
 - (iii) the deposit of any instrument of denunciation of this Protocol together with the date on which it is received and the date on which the denunciation takes effect;
 - (iv) any communication called for by any article of this Protocol; and
 - (b) transmit certified true copies of this Protocol to all States which have signed or acceded to this Protocol.
3. As soon as this Protocol enters into force, a certified true copy of the text shall be transmitted by the Secretary-General to the Secretary-General of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

ARTICLE 13**Languages**

This Protocol is established in a single original in the Arabic, Chinese, English, French, Russian and Spanish languages, each text being equally authentic.

DONE AT LONDON this fourteenth day of October two thousand and five.

IN WITNESS WHEREOF the undersigned, being duly authorized by their respective Governments for that purpose, have signed this Protocol.

Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation

[Signed at Beijing on 10 September 2010 – not yet in force]

THE STATES PARTIES TO THIS CONVENTION

DEEPLY CONCERNED that unlawful acts against civil aviation jeopardize the safety and security of persons and property, seriously affect the operation of air services, airports and air navigation, and undermine the confidence of the peoples of the world in the safe and orderly conduct of civil aviation for all States;

RECOGNIZING that new types of threats against civil aviation require new concerted efforts and policies of cooperation on the part of States;

BEING CONVINCED that in order to better address these threats, there is an urgent need to strengthen the legal framework for international cooperation in preventing and suppressing unlawful acts against civil aviation;

HAVE AGREED AS FOLLOWS:

ARTICLE 1

1. Any person commits an offence if that person unlawfully and intentionally:

- (a) performs an act of violence against a person on board an aircraft in flight if that act is likely to endanger the safety of that aircraft; or
- (b) destroys an aircraft in service or causes damage to such an aircraft which renders it incapable of flight or which is likely to endanger its safety in flight; or
- (c) places or causes to be placed on an aircraft in service, by any means whatsoever, a device or substance which is likely to destroy that aircraft, or to cause damage to it which renders it incapable of flight, or to cause damage to it which is likely to endanger its safety in flight; or
- (d) destroys or damages air navigation facilities or interferes with their operation, if any such act is likely to endanger the safety of aircraft in flight; or
- (e) communicates information which that person knows to be false, thereby endangering the safety of an aircraft in flight; or
- (f) uses an aircraft in service for the purpose of causing death, serious bodily injury, or serious damage to property or the environment; or
- (g) releases or discharges from an aircraft in service any BCN weapon or explosive, radioactive, or similar substances in a manner that causes or is likely to cause death, serious bodily injury or serious damage to property of the environment; or
- (h) uses against or on board an aircraft in service any BCN weapon or explosive, radioactive, or similar substances in a manner that causes or is likely to cause death, serious bodily injury or serious damage to property or the environment; or
- (i) transports, causes to be transported, or facilitates the transport of, on board an aircraft:

- (1) any explosive or radioactive material, knowing that it is intended to be used to cause, or in a threat to cause, with or without a condition, as is provided for under national law, death or

serious injury or damage for the purpose of intimidating a population, or compelling a government or an international organization to do or to abstain from doing any act; or

- (2) any BCN weapon, knowing it to be a BCN weapon as defined in Article 2; or
- (3) any source material, special fissionable material, or equipment or material especially designed or prepared for the processing, use or production of special fissionable material, knowing that it is intended to be used in a nuclear explosive activity or in any other nuclear activity not under safeguards pursuant to a safeguards agreement with the International Atomic Energy Agency; or
- (4) any equipment, materials or software or related technology that significantly contributes to the design, manufacture or delivery of a BCN weapon without lawful authorization and with the intention that it will be used for such purpose provided that for activities involving a State Party, including those undertaken by a person or legal entity authorized by a State Party, it shall not be an offence under subparagraphs (3) and (4) if the transport of such items or materials is consistent with or is for a use or activity that is consistent with its rights, responsibilities and obligations under the applicable multilateral nonproliferation treaty to which it is a party including those referred to in Article 7.

2. Any person commits an offence if that person unlawfully and intentionally, using any device, substance or weapon:

- (a) performs an act of violence against a person at an airport serving international civil aviation which causes or is likely to cause serious injury or death; or
- (b) destroys or seriously damages the facilities of an airport serving international civil aviation or aircraft not in service located thereon or disrupts the services of the airport, if such an act endangers or is likely to endanger safety at that airport.

3. Any person also commits an offence if that person:

- (a) makes a threat to commit any of the offences in subparagraphs (a), (b), (c), (d), (1), (g) and (h) of paragraph 1 or in paragraph 2; or
- (b) unlawfully and intentionally causes any person to receive such a threat, under circumstances which indicate that the threat is credible.

4. Any person also commits an offence if that person:

- (a) attempts to commit any of the offences set forth in paragraph 1 or 2 of this Article; or
- (b) organizes or directs others to commit an offence set forth in paragraph 1, 2, 3 or 4(a) of this Article; or
- (c) participates as an accomplice in an offence. set forth in paragraph 1, 2, 3 or 4(a) of this Article; or
- (d) unlawfully and intentionally assists another person to evade investigation, prosecution or punishment, knowing that the person has committed an act that constitutes an offence set

forth in paragraph 1,2,3, 4(a), 4(b) or 4(c) of this Article, or that the person is wanted for criminal prosecution by law enforcement authorities for such an offence or has been sentenced for such an offence.

5. Each State Party shall also establish as offences, when committed intentionally, whether or not any of the offences set forth in paragraph 1, 2 or 3 of this Article is actually committed or attempted, either or both of the following:

- (a) agreeing with one or more other persons to commit an offence set forth in paragraph 1, 2 or 3 of this Article and, where required by national law, involving an act undertaken by one of the participants in furtherance of the agreement; or
- (b) contributing in any other way to the commission of one or more offences set forth in paragraph 1, 2 or 3 of this Article by a group of persons acting with a common purpose, and such contribution shall either:
 - (i) be made with the aim of furthering the general criminal activity or purpose of the group, where such activity or purpose involves the commission of an offence set forth in paragraph 1,2 or 3 of this Article; or
 - (ii) be made in the knowledge of the intention of the group to commit an offence set forth in paragraph 1, 2 or 3 of this Article.

ARTICLE 2

For the purposes of this Convention:

- (a) an aircraft is considered to be in flight at any time from the moment when all its external doors are closed following embarkation until the moment when any such door is opened for disembarkation; in the case of a forced landing, the flight shall be deemed to continue until the competent authorities take over the responsibility for the aircraft and for persons and property on board;
- (b) an aircraft is considered to be in service from the beginning of the preflight preparation of the aircraft by ground personnel or by the crew for a specific flight until twenty-four hours after any landing; the period of service shall, in any event, extend for the entire period during which the aircraft is in flight as defined in paragraph (a) of this Article;
- (c) "Air navigation facilities" include signals, data, information or systems necessary for the navigation of the aircraft;
- (d) "Toxic chemical" means any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or of their method of production, and regardless of whether they are produced in facilities, in munitions or elsewhere;
- (e) "Radioactive material" means nuclear material and other radioactive substances which contain Nuclides which undergo spontaneous disintegration (a process accompanied by emission of one or more types of ionizing radiation, such as alpha, beta, neutron particles and gamma rays) and which may, owing to their radiological or fissile properties, cause death, serious bodily injury or substantial damage to property or to the environment;
- (f) "Nuclear material" means plutonium, except that with isotopic concentration exceeding 80 per cent in plutonium238; uranium233; uranium

enriched in the isotope 235 or 233; uranium containing the mixture of isotopes as occurring in nature other than in the form of ore or ore residue; or any material containing one or more of the foregoing;

- (g) "Uranium enriched in the isotope 235 or 233" means uranium containing the isotope 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature;
- (h) "BCN weapon" means:
- a) "biological weapons", which are:
 - (i) microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; or
 - (ii) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.
 - b) "chemical weapons", which are, together or separately:
 - (i) toxic chemicals and their precursors, except where intended for:
 - A. industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes; or
 - B. protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons; or
 - C. military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare; or
 - D. law enforcement including domestic riot control purposes, as long as the types and quantities are consistent with such purposes;
 - (ii) munitions and devices specifically designed to cause death or other harm through the toxic properties of those toxic chemicals specified in subparagraph (b)(i), which would be released as a result of the employment of such munitions and devices;
 - (iii) any equipment specifically designed for use directly in connection with the employment of munitions and devices specified in subparagraph (b)(i).
 - c) nuclear weapons and other nuclear explosive devices.
 - (i) "Precursor" means any chemical reactant which takes part at any stage in the production by whatever method of a toxic chemical. This includes any key component of a binary or multi component chemical system;
 - (j) the terms "source material" and "special fissionable material" have the same meaning as given to those terms in the Statute of the International Atomic Energy Agency, done at New York on 26 October 1956.

ARTICLE 3

Each State Party undertakes to make the offences set forth in Article 1 punishable by severe penalties.

ARTICLE 4

1. Each State Party, in accordance with its national legal principles, may take the necessary measures to enable a legal entity located in its territory or organized under its laws to be held liable when a person responsible for management or control of that legal entity has, in that capacity, committed an offence set forth in Article 1. Such liability may be criminal, civil or administrative.

2. Such liability is incurred without prejudice to the criminal liability of individuals having committed the offences.

3. If a State Party takes the necessary measures to make a legal entity liable in accordance with paragraph 1 of this Article, it shall endeavour to ensure that the applicable criminal, civil or administrative sanctions are effective, proportionate and dissuasive. Such sanctions may include monetary sanctions.

ARTICLE 5

1. This Convention shall not apply to aircraft used in military, customs or police services.

2. In the cases contemplated in subparagraphs (a), (b), (c), (e), (f), (g), (h) and (i) of paragraph 1 of Article 1, this Convention shall apply irrespective of whether the aircraft is engaged in an international or domestic flight, only if:

- (a) the place of takeoff or landing, actual or intended, of the aircraft is situated outside the territory of the State of registry of that aircraft; or
- (b) the offence is committed in the territory of a State other than the State of registry of the aircraft

3. Notwithstanding paragraph 2 of this Article, in the cases contemplated in subparagraphs (a), (b), (c), (e), (f), (g), (h) and (i) of paragraph 1 of Article 1, this Convention shall also apply if the offender or the alleged offender is found in the territory of a State other than the State of registry of the aircraft.

4. With respect to the States Parties mentioned in Article 15 and in the cases set forth in subparagraphs (a), (b), (c), (e), (f), (g), (h) and (i) of paragraph 1 of Article 1, this Convention shall not apply if the places referred to in subparagraph (a) of paragraph 2 of this Article are situated within the territory of the same State where that State is one of those referred to in Article 15, unless the offence is committed or the offender or alleged offender is found in the territory of a State other than that State.

5. In the cases contemplated in subparagraph (d) of paragraph 1 of Article 1, this Convention shall apply only if the air navigation facilities are used in international air navigation.

6. The provisions of paragraphs 2, 3, 4 and 5 of this Article shall also apply in the cases contemplated in paragraph 4 of Article 1.

ARTICLE 6

1. Nothing in this Convention shall affect other rights, obligations and responsibilities of States and individuals under international law, in particular the purposes and principles of the Charter of the United Nations, the Convention on International Civil Aviation and international humanitarian law.

2. The activities of armed forces during an armed conflict, as those terms are understood under international humanitarian law, which are governed by that law are not

governed by this Convention, and the activities undertaken by military forces of a State in the exercise of their official duties, inasmuch as they are governed by other rules of international law, are not governed by this Convention.

3. The provisions of paragraph 2 of this Article shall not be interpreted as condoning or making lawful otherwise unlawful acts, or precluding prosecution under other laws.

ARTICLE 7

Nothing in this Convention shall affect the rights, obligations and responsibilities under the Treaty on the Non-Proliferation of Nuclear Weapons, signed at London, Moscow and Washington on 1 July 1968, the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, signed at London, Moscow and Washington on 10 April 1972, or the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, signed at Paris on 13 January 1993, of States Parties to such treaties.

ARTICLE 8

1. Each State Party shall take such measures as may be necessary to establish its jurisdiction over the offences set forth in Article 1 in the following cases:

- (a) when the offence is committed in the territory of that State;
- (b) when the offence is committed against or on board an aircraft registered in that State;
- (c) when the aircraft on board which the offence is committed lands in its territory with the alleged offender still on board;
- (d) when the offence is committed against or on board an aircraft leased without crew to a lessee whose principal place of business or, if the lessee has no such place of business, whose permanent residence is in that State;
- (e) when the offence is committed by a national of that State.

2. Each State Party may also establish its jurisdiction over any such offence in the following cases:

- (a) when the offence is committed against a national of that State;
- (b) when the offence is committed by a stateless person whose habitual residence is in the territory of that State.

3. Each State Party shall likewise take such measures as may be necessary to establish its jurisdiction over the offences set forth in Article 1, in the case where the alleged offender is present in its territory and it does not extradite that person pursuant to Article 12 to any of the States Parties that have established their jurisdiction in accordance with the applicable paragraphs of this Article with regard to those offences.

4. This Convention does not exclude any criminal jurisdiction exercised in accordance with national law.

ARTICLE 9

1. Upon being satisfied that the circumstances so warrant, any State Party in the territory of which the offender or the alleged offender is present, shall take that person into custody or take other measures to ensure that person's presence. The custody and other measures shall be as provided in the law of that State but may only be continued for such time as is necessary to enable any criminal or extradition proceedings to be instituted.

2. Such State shall immediately make a preliminary enquiry into the facts.

3. Any person in custody pursuant to paragraph 1 of this Article shall be assisted in communicating immediately with the nearest appropriate representative of the State of which that person is a national.

4. When a State Party, pursuant to this Article, has taken a person into custody, it shall immediately notify the States Parties which have established jurisdiction under paragraph 1 of Article 8 and established jurisdiction and notified the Depositary under subparagraph (a) of paragraph 4 of Article 21 and, if it considers it advisable, any other interested States of the fact that such person is in custody and of the circumstances which warrant that person's detention. The State Party which makes the preliminary enquiry contemplated in paragraph 2 of this Article shall promptly report its findings to the said State Parties and shall indicate whether it intends to exercise jurisdiction.

ARTICLE 10

The State Party in the territory of which the alleged offender is found shall, if it does not extradite that person, be obliged, without exception whatsoever and whether or not the offence was committed in its territory, to submit the case to its competent authorities for the purpose of prosecution. Those authorities shall take their decision in the same manner as in the case of any ordinary offence of a serious nature under the law of that State.

ARTICLE 11

Any person who is taken into custody, or regarding whom any other measures are taken or proceedings are being carried out pursuant to this Convention, shall be guaranteed fair treatment, including enjoyment of all rights and guarantees in conformity with the law of the State in the territory of which that person is present and applicable provisions of international law, including international human rights law.

ARTICLE 12

1. The offences set forth in Article 1 shall be deemed to be included as extraditable offences in any extradition treaty existing between States Parties. States Parties undertake to include the offences as extraditable offences in every extradition treaty to be concluded between them.

2. If a State Party which makes extradition conditional on the existence of a treaty receives a request for extradition from another State Party with which it has no extradition treaty, it may at its option consider this Convention as the legal basis for extradition in respect of the offences set forth in Article 1. Extradition shall be subject to the other conditions provided by the law of the requested State.

3. States Parties which do not make extradition conditional on the existence of a treaty shall recognize the offences set forth in Article 1 as extraditable offences between themselves subject to the conditions provided by the law of the requested State.

4. Each of the offences shall be treated, for the purpose of extradition between States Parties, as if it had been committed not only in the place in which it occurred but also in the territories of the States Parties required to establish their jurisdiction in accordance with subparagraphs (b), (c), (d) and (e) of paragraph 1 of Article 8, and who have established jurisdiction in accordance with paragraph 2 of Article 8.

5. The offences set forth in subparagraphs (a) and (b) of paragraph 5 of Article 1 shall, for the purpose of extradition between States Parties, be treated as equivalent.

ARTICLE 13

None of the offences set forth in Article 1 shall be regarded, for the purposes of extradition or mutual legal assistance, as a political offence or as an offence connected with a political offence or as an offence inspired by political motives. Accordingly, a request for extradition or for mutual legal assistance based on such an offence may not be refused on the sole ground that it concerns a political offence or an offence connected with a political offence or an offence inspired by political motives.

ARTICLE 14

Nothing in this Convention shall be interpreted as imposing an obligation to extradite or to afford mutual legal assistance, if the requested State Party has substantial grounds for believing that the request for extradition for offences set forth in Article 1 or for mutual legal assistance with respect to such offences has been made for the purpose of prosecuting or punishing a person on account of that person's race, religion, nationality, Ethnic origin, political opinion or gender, or that compliance with the request would cause prejudice to that person's position for any of these reasons.

ARTICLE 15

The States Parties which establish joint air transport operating organizations or international operating agencies, which operate aircraft which are subject to joint or international registration shall, by appropriate means, designate for each aircraft the State among them which shall exercise the jurisdiction and have the attributes of the State of registry for the purpose of this Convention and shall give notice thereof to the Secretary General of the International Civil Aviation Organization who shall communicate the notice to all States Parties to this Convention.

ARTICLE 16

1. States Parties shall, in accordance with international and national law, endeavour to take all practicable measures for the purpose of preventing the offences set forth in Article 1.

2. When, due to the commission of one of the offences set forth in Article 1, a flight has been delayed or interrupted, any State Party in whose territory the aircraft or passengers or crew are present shall facilitate the continuation of the journey of the passengers and crew as soon as practicable, and shall without delay return the aircraft and its cargo to the persons lawfully entitled to possession.

ARTICLE 17

1. States Parties shall afford one another the greatest measure of assistance in connection with criminal proceedings brought in respect of the offences set forth in Article 1. The law of the State requested shall apply in all cases.

2. The provisions of paragraph 1 of this Article shall not affect obligations under any other treaty, bilateral or multilateral, which governs or will govern, in whole or in part, mutual assistance in criminal matters.

ARTICLE 18

Any State Party having reason to believe that one of the offences set forth in Article 1 will be committed shall, in accordance with its national law, furnish any relevant information in its possession to those States Parties which it believes would be the States set forth in paragraphs 1 and 2 of Article 8.

ARTICLE 19

Each State Party shall in accordance with its national law report to the Council of the International Civil Aviation Organization as promptly as possible any relevant information in its possession concerning:

- (a) the circumstances of the offence;
- (b) the action taken pursuant to paragraph 2 of Article 16;
- (c) the measures taken in relation to the offender or the alleged offender and, in particular, the results of any extradition proceedings or other legal proceedings.

ARTICLE 20

1. Any dispute between two or more States Parties concerning the interpretation or application of this Convention which cannot be settled through negotiation, shall, at the request of one of them, be submitted to arbitration. If within six months from the date of the request for arbitration the Parties are unable to agree on the organization of the arbitration, anyone of those Parties may refer the dispute to the International Court of Justice by request in conformity with the Statute of the Court.

2. Each State may at the time of signature, ratification, acceptance or approval of this Convention or accession thereto, declare that it does not consider itself bound by the preceding paragraph. The other States Parties shall not be bound by the preceding paragraph with respect to any State Party having made such a reservation.

3. Any State Party having made a reservation in accordance with the preceding paragraph may at any time withdraw this reservation by notification to the Depositary.

ARTICLE 21

1. This Convention shall be open for signature in Beijing on 10 September 2010 by States participating in the Diplomatic Conference on Aviation Security held at Beijing from 30 August to 10 September 2010. After 27 September 2010, this Convention shall be open to all States for signature at the Headquarters of the International Civil Aviation Organization in Montreal until it enters into force in accordance with Article 22.

2. This Convention is subject to ratification, acceptance or approval. The instruments of ratification, acceptance or approval shall be deposited with the Secretary General of the International Civil Aviation Organization, which is hereby designated as the Depositary.

3. Any State which does not ratify, accept or approve this Convention in accordance with paragraph 2 of this Article may accede to it at any time. The instrument of accession shall be deposited with the Depositary.

4. Upon ratifying, accepting, approving or acceding to this Convention, each State Party:

- (a) shall notify the Depositary of the jurisdiction it has established under its national law in accordance with paragraph 2 of Article 8, and immediately notify the Depositary of any change; and
- (b) may declare that it shall apply the provisions of subparagraph (d) of paragraph 4 of Article 1 in accordance with the principles of its criminal law concerning family exemptions from liability.

ARTICLE 22

1. This Convention shall enter into force on the first day of the second month following the date of the deposit of the

twenty-second instrument of ratification, acceptance, approval or accession.

2. For each State ratifying, accepting, approving or acceding to this Convention after the deposit of the twenty-second instrument of ratification, acceptance, approval or accession, this Convention shall enter into force on the first day of the second month following the date of the deposit by such State of its instrument of ratification, acceptance, approval or accession.

3. As soon as this Convention enters into force it shall be registered with the United Nations by the Depositary.

ARTICLE 23

1. Any State Party may denounce this Convention by written notification to the Depositary.

2. Denunciation shall take effect one year following the date on which notification is received by the Depositary.

ARTICLE 24

As between the States Parties, this Convention shall prevail over the following instruments:

- (a) the Convention for the Suppression of Unlawful Acts Against the Safety of Civil Aviation, Signed at Montreal on 23 September 1971; and
- (b) the Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, Supplementary to the Convention for the Suppression of Unlawful Acts Against the Safety of Civil Aviation, Done at Montreal on 23 September 1971, Signed at Montreal on 24 February 1988.

ARTICLE 25

The Depositary shall promptly inform all States Parties to this Convention and all signatory or acceding States to this Convention of the date of each signature, the date of deposit of each instrument of ratification, approval, acceptance or accession, the date of coming into force of this Convention and other relevant information.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, having been duly authorized, have signed this Convention.

DONE at Beijing on the tenth day of September of the year Two Thousand and Ten in the English, Arabic, Chinese, French, Russian and Spanish languages, all texts being equally authentic, such authenticity to take effect upon verification by the Secretariat of the Conference under the authority of the President of the Conference within ninety days hereof as to the conformity of the texts with one another. This Convention shall remain deposited in the archives of the International Civil Aviation Organization and certified copies thereof shall be transmitted by the Depositary to all Contracting States to this Convention.

B – UN Instruments

UN Security Council Resolution 1373

[Reproduced from S/RES/1373, adopted on 28 September 2001]

The Security Council,

Reaffirming its resolutions 1269 (1999) of 19 October 1999 and 1368 (2001) of 12 September 2001,

Reaffirming also its unequivocal condemnation of the terrorist attacks which took place in New York, Washington, D.C. and Pennsylvania on 11 September 2001, and expressing its determination to prevent all such acts,

Reaffirming further that such acts, like any act of international terrorism, constitute a threat to international peace and security,

Reaffirming the inherent right of individual or collective self-defence as recognized by the Charter of the United Nations as reiterated in resolution 1368 (2001),

Reaffirming the need to combat by all means, in accordance with the Charter of the United Nations, threats to international peace and security caused by terrorist acts,

Deeply concerned by the increase, in various regions of the world, of acts of terrorism motivated by intolerance or extremism,

Calling on States to work together urgently to prevent and suppress terrorist acts, including through increased cooperation and full implementation of the relevant international conventions relating to terrorism,

Recognizing the need for States to complement international cooperation by taking additional measures to prevent and suppress, in their territories through all lawful means, the financing and preparation of any acts of terrorism,

Reaffirming the principle established by the General Assembly in its declaration of October 1970 (resolution 2625 (XXV)) and reiterated by the Security Council in its resolution 1189 (1998) of 13 August 1998, namely that every State has the duty to refrain from organizing, instigating, assisting or participating in terrorist acts in another State or acquiescing in organized activities within its territory directed towards the commission of such acts,

Acting under Chapter VII of the Charter of the United Nations,

1. Decides that all States shall:

- (a) Prevent and suppress the financing of terrorist acts;
- (b) Criminalize the wilful provision or collection, by any means, directly or indirectly, of funds by their nationals or in their territories with the intention that the funds should be used, or in the knowledge that they are to be used, in order to carry out terrorist acts;
- (c) Freeze without delay funds and other financial assets or economic resources of persons who commit, or attempt to commit, terrorist acts or participate in or facilitate the commission of terrorist acts; of entities owned or controlled directly or indirectly by such persons; and of persons and entities acting on behalf of, or at the direction

of such persons and entities, including funds derived or generated from property owned or controlled directly or indirectly by such persons and associated persons and entities;

(d) Prohibit their nationals or any persons and entities within their territories from making any funds, financial assets or economic resources or financial or other related services available, directly or indirectly, for the benefit of persons who commit or attempt to commit or facilitate or participate in the commission of terrorist acts, of entities owned or controlled, directly or indirectly, by such persons and of persons and entities acting on behalf of or at the direction of such persons;

2. Decides also that all States shall:

(a) Refrain from providing any form of support, active or passive, to entities or persons involved in terrorist acts, including by suppressing recruitment of members of terrorist groups and eliminating the supply of weapons to terrorists;

(b) Take the necessary steps to prevent the commission of terrorist acts, including by provision of early warning to other States by exchange of information;

(c) Deny safe haven to those who finance, plan, support, or commit terrorist acts, or provide safe havens;

(d) Prevent those who finance, plan, facilitate or commit terrorist acts from using their respective territories for those purposes against other States or their citizens;

(e) Ensure that any person who participates in the financing, planning, preparation or perpetration of terrorist acts or in supporting terrorist acts is brought to justice and ensure that, in addition to any other measures against them, such terrorist acts are established as serious criminal offences in domestic laws and regulations and that the punishment duly reflects the seriousness of such terrorist acts;

(f) Afford one another the greatest measure of assistance in connection with criminal investigations or criminal proceedings relating to the financing or support of terrorist acts, including assistance in obtaining evidence in their possession necessary for the proceedings;

(g) Prevent the movement of terrorists or terrorist groups by effective border controls and controls on issuance of identity papers and travel documents, and through measures for preventing counterfeiting, forgery or fraudulent use of identity papers and travel documents;

3. Calls upon all States to:

(a) Find ways of intensifying and accelerating the exchange of operational information, especially regarding actions or movements of terrorist persons or networks; forged or falsified travel documents; traffic in arms, explosives or sensitive materials; use of communications technologies by terrorist groups; and the threat posed by the possession of weapons of mass destruction by terrorist groups;

(b) Exchange information in accordance with international and domestic law and cooperate on administrative and judicial matters to prevent the commission of terrorist acts;

(c) Cooperate, particularly through bilateral and multilateral arrangements and agreements, to prevent and suppress terrorist attacks and take action against perpetrators of such acts;

(d) Become parties as soon as possible to the relevant international conventions and protocols relating to terrorism, including the International Convention for the Suppression of the Financing of Terrorism of 9 December 1999;

(e) Increase cooperation and fully implement the relevant international conventions and protocols relating to terrorism and Security Council resolutions 1269 (1999) and 1368 (2001);

(f) Take appropriate measures in conformity with the relevant provisions of national and international law, including international standards of human rights, before granting refugee status, for the purpose of ensuring that the asylum-seeker has not planned, facilitated or participated in the commission of terrorist acts;

(g) Ensure, in conformity with international law, that refugee status is not abused by the perpetrators, organizers or facilitators of terrorist acts, and that claims of political motivation are not recognized as grounds for refusing requests for the extradition of alleged terrorists;

4. Notes with concern the close connection between international terrorism and transnational organized crime, illicit drugs, money-laundering, illegal arms-trafficking, and illegal movement of nuclear, chemical, biological and other potentially deadly materials, and in this regard emphasizes the need to enhance coordination of efforts on national, subregional, regional and international levels in order to strengthen a global response to this serious challenge and threat to international security;

5. Declares that acts, methods, and practices of terrorism are contrary to the purposes and principles of the United Nations and that knowingly financing, planning and inciting terrorist acts are also contrary to the purposes and principles of the United Nations;

6. Decides to establish, in accordance with rule 28 of its provisional rules of procedure, a Committee of the Security Council, consisting of all the members of the Council, to monitor implementation of this resolution, with the assistance of appropriate expertise, and calls upon all States to report to the Committee, no later than 90 days from the date of adoption of this resolution and thereafter according to a timetable to be proposed by the Committee, on the steps they have taken to implement this resolution;

7. Directs the Committee to delineate its tasks, submit a work programme within 30 days of the adoption of this resolution, and to consider the support it requires, in consultation with the Secretary-General;

8. Expresses its determination to take all necessary steps in order to ensure the full implementation of this resolution, in accordance with its responsibilities under the Charter;

9. Decides to remain seized of this matter.

UN Security Council Resolution 1540

[Reproduced from S/RES/1540,
adopted on 28 April 2004]

The Security Council,

Affirming that proliferation of nuclear, chemical and biological

weapons, as well as their means of delivery,³ constitutes a threat to international peace and security,

Reaffirming, in this context, the Statement of its President adopted at the Council's meeting at the level of Heads of State and Government on 31 January 1992 (S/23500), including the need for all Member States to fulfil their obligations in relation to arms control and disarmament and to prevent proliferation in all its aspects of all weapons of mass destruction,

Recalling also that the Statement underlined the need for all Member States to resolve peacefully in accordance with the Charter any problems in that context threatening or disrupting the maintenance of regional and global stability,

Affirming its resolve to take appropriate and effective actions against any threat to international peace and security caused by the proliferation of nuclear, chemical and biological weapons and their means of delivery, in conformity with its primary responsibilities, as provided for in the United Nations Charter,

Affirming its support for the multilateral treaties whose aim is to eliminate or prevent the proliferation of nuclear, chemical or biological weapons and the importance for all States parties to these treaties to implement them fully in order to promote international stability,

Welcoming efforts in this context by multilateral arrangements which contribute to non-proliferation,

Affirming that prevention of proliferation of nuclear, chemical and biological weapons should not hamper international cooperation in materials, equipment and technology for peaceful purposes while goals of peaceful utilization should not be used as a cover for proliferation,

Gravely concerned by the threat of terrorism and the risk that non-State actors* such as those identified in the United Nations list established and maintained by the Committee established under Security Council resolution 1267 and those to whom resolution 1373 applies, may acquire, develop, traffic in or use nuclear, chemical and biological weapons and their means of delivery,

Gravely concerned by the threat of illicit trafficking in nuclear, chemical, or biological weapons and their means of delivery, and related materials,* which adds a new dimension to the issue of proliferation of such weapons and also poses a threat to international peace and security,

Recognizing the need to enhance coordination of efforts on national, subregional, regional and international levels in order to strengthen a global response to this serious challenge and threat to international security,

Recognizing that most States have undertaken binding legal obligations under treaties to which they are parties, or have made other commitments aimed at preventing the proliferation of nuclear, chemical or biological weapons, and have taken effective measures to account for, secure and physically protect sensitive materials, such as those required by the Convention on the Physical Protection of Nuclear Materials and those recommended by the IAEA Code of Conduct on the Safety and Security of Radioactive Sources,

Recognizing further the urgent need for all States to take additional effective measures to prevent the proliferation of nuclear, chemical or biological weapons and their means of delivery,

³ Definitions for the purpose of this resolution only:

– Means of delivery: missiles, rockets and other unmanned systems capable of delivering nuclear, chemical, or biological weapons that are specially designed for such use.

– Non-State actor: individual or entity, not acting under the lawful authority of any State in conducting activities which come within the scope of this resolution.

– Related materials: materials, equipment and technology covered by relevant multilateral treaties and arrangements, or included on national control lists, which could be used for the design, development, production or use of nuclear, chemical and biological weapons and their means of delivery.

Encouraging all Member States to implement fully the disarmament treaties and agreements to which they are party,

Reaffirming the need to combat by all means, in accordance with the Charter of the United Nations, threats to international peace and security caused by terrorist acts,

Determined to facilitate henceforth an effective response to global threats in the area of non-proliferation,

Acting under Chapter VII of the Charter of the United Nations,

1. *Decides that* all States shall refrain from providing any form of support to non-State actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery;

2. *Decides also* that all States, in accordance with their national procedures, shall adopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them;

3. *Decides also* that all States shall take and enforce effective measures to establish domestic controls to prevent the proliferation of nuclear, chemical, or biological weapons and their means of delivery, including by establishing appropriate controls over related materials and to this end shall:

(a) Develop and maintain appropriate effective measures to account for and secure such items in production, use, storage or transport;

(b) Develop and maintain appropriate effective physical protection measures;

(c) Develop and maintain appropriate effective border controls and law enforcement efforts to detect, deter, prevent and combat, including through international cooperation when necessary, the illicit trafficking and brokering in such items in accordance with their national legal authorities and legislation and consistent with international law;

(d) Establish, develop, review and maintain appropriate effective national export and trans-shipment controls over such items, including appropriate laws and regulations to control export, transit, trans-shipment and re-export and controls on providing funds and services related to such export and trans-shipment such as financing, and transporting that would contribute to proliferation, as well as establishing end-user controls; and establishing and enforcing appropriate criminal or civil penalties for violations of such export control laws and regulations;

4. *Decides* to establish, in accordance with rule 28 of its provisional rules of procedure, for a period of no longer than two years, a Committee of the Security Council, consisting of all members of the Council, which will, calling as appropriate on other expertise, report to the Security Council for its examination, on the implementation of this resolution, and to this end calls upon States to present a first report no later than six months from the adoption of this resolution to the Committee on steps they have taken or intend to take to implement this resolution;

4. *Decides* that none of the obligations set forth in this resolution shall be interpreted so as to conflict with or alter the rights and obligations of State Parties to the Nuclear Non-Proliferation Treaty, the Chemical Weapons Convention and the Biological and Toxin Weapons Convention or alter the responsibilities of the International Atomic Energy Agency or the Organization for the Prohibition of Chemical Weapons;

6. *Recognizes* the utility in implementing this resolution of effective national control lists and calls upon all Member States, when necessary, to pursue at the earliest opportunity the development of such lists;

7. *Recognizes* that some States may require assistance in

implementing the provisions of this resolution within their territories and invites States in a position to do so to offer assistance as appropriate in response to specific requests to the States lacking the legal and regulatory infrastructure, implementation experience and/or resources for fulfilling the above provisions;

8. *Calls upon* all States:

(a) To promote the universal adoption and full implementation, and, where necessary, strengthening of multilateral treaties to which they are parties, whose aim is to prevent the proliferation of nuclear, biological or chemical weapons;

(b) To adopt national rules and regulations, where it has not yet been done, to ensure compliance with their commitments under the key multilateral nonproliferation treaties;

(c) To renew and fulfil their commitment to multilateral cooperation, in particular within the framework of the International Atomic Energy Agency, the Organization for the Prohibition of Chemical Weapons and the Biological and Toxin Weapons Convention, as important means of pursuing and achieving their common objectives in the area of non-proliferation and of promoting international cooperation for peaceful purposes;

(d) To develop appropriate ways to work with and inform industry and the public regarding their obligations under such laws;

9. *Calls upon* all States to promote dialogue and cooperation on nonproliferation so as to address the threat posed by proliferation of nuclear, chemical, or biological weapons, and their means of delivery;

10. Further to counter that threat, *calls upon* all States, in accordance with their national legal authorities and legislation and consistent with international law, to take cooperative action to prevent illicit trafficking in nuclear, chemical or biological weapons, their means of delivery, and related materials;

11. *Expresses* its intention to monitor closely the implementation of this resolution and, at the appropriate level, to take further decisions which may be required to this end;

12. *Decides* to remain seized of the matter.

UN Security Council Resolution 1977

[Reproduced from S/RES/1977,
adopted on 20 April 2011]

The Security Council,

Reaffirming its resolutions 1540 (2004) of 28 April 2004, 1673 (2006) of 27 April 2006 and 1810 (2008) of 25 April 2008,

Reaffirming that the proliferation of nuclear, chemical and biological weapons, as well as their means of delivery, constitutes a threat to international peace and security,

Reaffirming the need for all Member States to comply fully with their obligations and fulfil their commitments in relation to arms control, disarmament and non-proliferation in all its aspects of all weapons of mass destruction and their means of delivery,

Reaffirming that prevention of proliferation of nuclear, chemical and biological weapons should not hamper international cooperation in materials, equipment and technology for peaceful purposes while goals of peaceful utilization should not be misused for proliferation purposes,

Remaining gravely concerned by the threat of terrorism and the risk that non state actors may acquire, develop, traffic in or use nuclear, chemical, and biological weapons and their means of delivery,

Reaffirming its resolve to take appropriate and effective actions against any threat to international peace and security caused by the proliferation of nuclear, chemical and biological weapons and their means of delivery, in conformity with its primary responsibilities, as provided for in the United Nations Charter,

Reaffirming its decision that none of the obligations in resolution 1540 (2004) shall be interpreted so as to conflict with or alter the rights and obligations of State Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, the Chemical Weapons Convention and the Biological and Toxin Weapons Convention or alter the responsibilities of the International Atomic Energy Agency or the Organization for the Prohibition of Chemical Weapons,

Noting that international cooperation between States, in accordance with international law, is required to counter the illicit trafficking by non-State actors in nuclear, chemical and biological weapons, their means of delivery and related materials,

Recognizing the need to enhance coordination of efforts at national, regional, subregional and international levels, as appropriate, in order to strengthen a global response to the serious challenge and threat to international peace and security posed by the proliferation of weapons of mass destruction and their means of delivery,

Emphasizing the need for States to take all appropriate national measures in accordance with their national authorities and legislation, and consistent with international law, to strengthen export controls, to control access to intangible transfers of technology and to information that could be used for weapons of mass destruction and their means of delivery, to prevent proliferation financing and shipments, and to secure sensitive materials,

Endorsing the work already carried out by the Committee established pursuant to resolution 1540 (2004), hereafter the 1540 Committee, in accordance with its programmes of work, including the establishment of the working groups for facilitating implementation of the Programme of Work,

Recognizing States' progress in implementing resolution 1540 (2004), *while noting* that States have taken fewer measures in some of its areas,

Endorsing also the valuable activities of the 1540 Committee with relevant international regional and subregional organizations,

Taking note of international efforts towards full implementation of resolution 1540 (2004), including on preventing the financing of proliferation-related activities, and *taking into consideration* the guidance of the framework of the Financial Action Task Force (FATF),

Noting that not all States have presented to the 1540 Committee their national reports on implementation of resolution 1540 (2004),

Further noting that the full implementation of resolution 1540 (2004) by all States, including the adoption of national laws and measures to ensure implementation of these laws, is a long-term task that will require continuous efforts at national, regional and international levels,

Recognizing, in that regard, the importance of dialogue between the 1540 Committee and Member States and stressing that direct contact is an effective means of such dialogue,

Recognizing that many States continue to require assistance in implementing resolution 1540 (2004), *emphasizing* the importance of providing States, in response to their requests, with effective assistance that meets their needs, and *welcoming* the coordinating and facilitating role of the 1540 Committee in this regard,

Stressing, in that regard, the need of enhanced assistance and collaboration among States, between the 1540 Committee and States, and between the 1540 Committee and relevant international, regional and subregional organizations in assisting States to implement resolution 1540 (2004),

Recognizing the importance of progress towards achieving the goals and objectives of the 2010 Nuclear Security Summit as a contribution to the effective implementation of Security Council resolution 1540 (2004),

Calling on States to work together urgently to prevent and suppress acts of nuclear terrorism including through increased cooperation and full implementation of the relevant international conventions, and through appropriate measures to reinforce the existing legal framework with a view to ensure that those committing offences of nuclear terrorism are effectively held accountable,

Endorsing the 2009 comprehensive review of the status of implementation of resolution 1540 and *taking note* of the findings and recommendations contained in its final document,

Acting under Chapter VII of the Charter of the United Nations:

1. *Reiterates* its decisions in and the requirements of resolution 1540 (2004), and *re-emphasizes* the importance for all States to implement fully that resolution;

2. *Decides* to extend the mandate of the 1540 Committee for a period of 10 years until 25 April 2021;

3. *Decides* that the 1540 Committee will conduct a comprehensive review on the status of implementation of resolution 1540 (2004), both after five years and prior to the renewal of its mandate, including, if necessary, recommendations on adjustments to the mandate, and will submit to the Security Council a report on the conclusions of those reviews, and *decides* that, accordingly, the first review should be held before December 2016;

4. *Again decides* that the 1540 Committee should submit an annual Programme of Work to the Security Council before the end of each May, and *decides* that next Programme of Work will be prepared before May 31, 2011;

5. *Decides* to continue to provide the 1540 Committee with the assistance of experts, and to this end:

(a) *Requests* the Secretary-General to establish, in consultation with the 1540 Committee, a group of up to eight experts ("group of experts"), acting under the direction and purview of the Committee, composed of individuals with the appropriate experience and knowledge to provide the Committee with expertise, to assist the Committee in carrying out its mandate under resolutions 1540 (2004), 1673 (2006), 1810 (2008) and this resolution, including through facilitation of assistance to improve implementation of resolution 1540 (2004);

(b) *Requests*, in that regard, the 1540 Committee to consider recommendations for the Committee and the group of experts on expertise requirements, broad geographic representation, working methods, modalities, and structure, including consideration

of the feasibility of a coordination and leadership position of the group of experts, and to present these recommendations to the Security Council no later than August 31, 2011;

Implementation

6. *Again calls upon* all States that have not yet presented a first report on steps they have taken or intend to take to implement resolution 1540 (2004) to submit such a report to the Committee without delay;

7. *Again encourages* all States that have submitted such reports to provide, when appropriate or upon the request of the 1540 Committee, additional information on their implementation of resolution 1540 (2004), including, voluntarily, on States' effective practices;

8. *Encourages* all States to prepare on a voluntary basis national implementation action plans, with the assistance of the 1540 Committee as appropriate, mapping out their priorities and plans for implementing the key provisions of resolution 1540 (2004), and to submit those plans to the 1540 Committee;

9. *Decides* that the 1540 Committee shall continue to intensify its efforts to promote the full implementation by all States of resolution 1540 (2004), through its Programme of Work, which includes the compilation and general examination of information on the status of States' implementation of resolution 1540 (2004) as well as States' efforts at outreach, dialogue, assistance and cooperation; and which addresses in particular all aspects of paragraphs 1, 2 and 3 of that resolution, which encompasses (a) accountability, (b) physical protection, (c) border controls and law enforcement efforts and (d) national export and trans-shipment controls including controls on providing funds and services such as financing to such exports and trans-shipments; and includes, as necessary, specific priorities for its work, taking into account its annual review on the implementation of resolution 1540 (2004), prepared with the assistance of the group of experts before the end of each December;

10. *Urges* the 1540 Committee to continue to engage actively with States and relevant international, regional and subregional organizations to promote the sharing of experience, lessons learned and effective practices, in the areas covered by resolution 1540 (2004), drawing in particular on information provided by States as well as examples of successful assistance, and to liaise on the availability of programmes which might facilitate the implementation of resolution 1540 (2004), while bearing in mind that customized assistance is useful for the effective implementation of resolution 1540 (2004) at national levels;

11. *Encourages*, in that regard, the 1540 Committee, with the support of necessary relevant expertise, to actively engage in dialogue with States on the implementation of resolution 1540 (2004), including through visits to States at their invitation;

12. *Requests* the 1540 Committee, with the support of the group of experts, to identify effective practices, templates and guidance, with a view to develop a compilation, as well as to consider preparing a technical reference guide about resolution 1540 (2004), to be used by States on a voluntary basis in implementing resolution 1540 (2004), and in that regard, *encourages* the 1540 Committee, at its discretion, to draw also on relevant expertise, including, civil society and the private sector, with, as appropriate, their State's consent;

Assistance

13. *Encourages* States that have requests for assistance to convey them to the 1540 Committee, and

encourages them to make use of the Committee's assistance template to that effect;

14. *Urges* States and relevant international, regional and subregional organizations to inform the Committee as appropriate of areas in which they are able to provide assistance; and *calls upon* States and such organizations, if they have not done so previously, to provide the 1540 Committee with a point of contact for assistance by August 31, 2011;

15. *Urges* the 1540 Committee to continue strengthening the Committee's role in facilitating technical assistance for implementation of resolution 1540 (2004), in particular by engaging actively, with the support of the group of experts, in matching offers and requests for assistance, through such means as visits to States, at the invitation of the State concerned, assistance templates, action plans or other information submitted to the 1540 Committee;

16. *Supports* the continued efforts of the 1540 Committee to secure a coordinated and transparent assistance process that provides timely and ready availability of information for States seeking assistance and for States prepared to provide assistance;

17. *Encourages* meetings on assistance issues with the participation of the 1540 Committee, between States prepared to offer assistance, States requesting assistance, other interested States, and relevant international, regional and subregional organizations;

Cooperation with International, Regional, and Subregional Organizations

18. *Calls upon* relevant international, regional and subregional organizations to designate and provide the 1540 Committee by 31 August 2011 with a point of contact or coordinator for the implementation of resolution 1540 (2004); and *encourages* them to enhance cooperation and information sharing with the 1540 Committee on technical assistance and all other issues of relevance for the implementation of resolution 1540 (2004);

19. *Reiterates* the need to continue to enhance ongoing cooperation among the 1540 Committee, the Security Council Committee established pursuant to resolution 1267 (1999), concerning Al-Qaida and the Taliban, and the Security Council Committee established pursuant to resolution 1373 (2001), concerning counter-terrorism, including through, as appropriate, enhanced information sharing, coordination on visits to States, within their respective mandates, technical assistance and other issues of relevance to all three committees; and expressing its intention to provide guidance to the committees on areas of common interest in order to better coordinate their efforts;

Transparency and Outreach

20. *Requests* the 1540 Committee to continue to institute transparency measures and activities, inter alia by making fullest possible use of the Committee's website, and *urges* the Committee to conduct, with the participation of the group of experts, regular meetings open to all Member States on the Committee's and group's activities related to the aforementioned objectives;

21. *Requests* the 1540 Committee to continue to organize and participate in outreach events on the implementation of resolution 1540 (2004) at the international, regional, subregional, and, as appropriate, national level, and promote the refinement of these outreach efforts to focus on specific thematic and regional issues related to implementation;

Administration and Resources

22. *Recognizes* that implementation of the mandate of the 1540 Committee requires sustained support and adequate resources; and to that end:

(a) *Endorses* the existing administrative and logistics support to the 1540 Committee from the Office for Disarmament Affairs, and decides that the Committee should report to the Council by January 2012 on the possibility of strengthening this support, including through strengthening of ODA's regional capacity to support the implementation of the resolution at regional, subregional and national levels;

(b) *Calls upon* the Secretariat to provide and maintain sufficient expertise to support activities of the 1540 Committee as outlined in the present resolution;

(c) *Encourages* States that are able to do so to provide resources to the Office of Disarmament Affairs to assist States in implementing their 1540 obligations, and to make available "in kind" contributions or cost-free training and expertise to the 1540 Committee to help the group of experts meet requests for assistance in a timely and effective manner;

(d) *Invites* the 1540 Committee to consider developing, in close cooperation with relevant international, regional and subregional organizations and other United Nations bodies, ways to utilize and maintain expertise, including, in particular, of former experts of the group, that could be made available for specific missions and assistance needs regarding the implementation of resolution 1540 (2004);

(e) *Urges* the 1540 Committee to continue to encourage and take full advantage of voluntary financial contributions to assist States in identifying and addressing their needs for the implementation of resolution 1540 (2004), and *requests* the 1540 Committee at its discretion, to promote the efficient and effective use of the existing funding mechanisms within the UN system;

23. *Decides* to remain seized of the matter.

Letter dated 31 December 2014 from the Chair of the Security Council Committee established pursuant to resolution 1540 (2004) addressed to the President of the Security Council

[Reproduced from S/2014/958 – pp. 1-20, 31 December 2014]

On behalf of the Security Council Committee established pursuant to resolution 1540 (2004), I have the honour to refer to paragraph 9 of Security Council resolution 1977 (2011) and to transmit herewith the review of the implementation of resolution 1540 (2004) for 2014 (see annex).

I would appreciate it if you could bring the present letter and its annex to the attention of the members of the Security Council and have them circulated as a document of the Council.

(Signed) Oh Joon
Chair

Security Council Committee established
pursuant to resolution 1540 (2004)

Annex

Review of the implementation of resolution 1540 (2004) for 2014

I. Introduction

1. In its resolution 1540 (2004), the Security Council expressed its intention to monitor closely the implementation of the resolution and, at the

appropriate level, to take further decisions that may be required to that end. On 20 April 2011, the Council, noting that the full implementation of resolution 1540 (2004) by all States was a long-term task, unanimously adopted resolution 1977 (2011) extending the mandate of the Security Council Committee established pursuant to resolution 1540 (2004) for 10 years. In paragraph 9 of resolution 1977 (2011), the Council decided that the Committee should continue to intensify its efforts to promote the full implementation by all States of resolution 1540 (2004) through its programme of work, which includes the compilation and general examination of information on the status of the implementation by States of resolution 1540 (2004) and on efforts by States at outreach, dialogue, assistance and cooperation. The annual review on the implementation of resolution 1540 (2004) is prepared before the end of each December with the assistance of the Group of Experts.

II. Summary

2. The annual review for 2014⁴ comprises two parts. The first part contains a factual summary of activities of States in the areas of implementation; assistance; cooperation with international, regional and subregional organizations; and transparency and outreach, as facilitated by the Committee and its Group of Experts. The second part contains an assessment of progress, measured against the programme of work of the Committee, and an analysis of implementation. The review addresses all aspects of resolution 1540 (2004). Enclosure 1 contains a list of outreach events attended by the Chair of the Committee, its members and experts. Enclosure 2 contains a list of events for which formal invitations were received but which were not attended.

III. Progress and achievements

A. Trend in implementation

3. During the reporting period, the following trends in the implementation of resolution 1540 (2004) emerged:
 - (a) The higher level of national reporting maintained in 2014 shows an increase in the number of measures taken by Member States to implement the resolution, including through adhering to the legally binding instruments and other guidance documents relevant to resolution 1540 (2004). Although most updates to current legislation predate 2014, they have led to the clarification of domestic prohibitions on nuclear, chemical and biological weapons. The States reporting in 2014 supplied the Committee with new information on the status of implementation of the resolution to which it can refer in its revision of the matrices for each State;
 - (b) The special effort made to hold events that involved direct interaction with non-reporting States elicited two first reports from such States and provided the opportunity for sharing advice and raising awareness among the others. While taking account of the particular

⁴ The 2014 review contains data and information received as at 19 December 2014. Data and information received in 2014 after that date will be reflected in the 2015 review.

challenges faced by most non-reporting States, it is likely that more results of those efforts will become apparent in 2015;

- (c) States report an increase in measures taken with regard to terrorism financing and a number of States have instituted financial intelligence units. In that sector, however, States need more guidance and advice on regulatory action, in particular with regard to proliferation financing;
- (d) Measures reported or undertaken by States remain predominantly in the nuclear and chemical areas. The biological area is the least reported one and the one for which it is most difficult to find legislation relevant to resolution 1540 (2004). In that connection, it should be noted that there is not an international organization in the biological area that supports the implementation of the convention in that area, as there is in the nuclear and chemical areas, namely, the International Atomic Energy Agency (IAEA) and the Organization for the Prohibition of Chemical Weapons (OPCW). In the area of export controls, relatively fewer measures are taken by many States. In general, States that do not participate in export control regimes seem to lack specific legislation regarding the control of exports of materials related to the resolution;
- (e) The submission and development of voluntary national implementation action plans has been increasing, and that, in turn, enhances implementation
- (f) There was a noticeable increase in the submission of clearly defined assistance requests, which was met with more prompt responses from providers, as indicated in the present report;
- (g) The number of outreach events related to resolution 1540 (2004) increased in 2013 and that increase was maintained in 2014. It is likely that those interactions, particularly those involving direct interaction with States such as visits to States and national round tables, were an important source of impetus for the trends noted above;
- (h) The continued strengthening of cooperation between relevant international organizations, such as IAEA, OPCW, the United Nations Office on Drugs and Crime (UNODC), the International Criminal Police Organization (INTERPOL) and the World Customs Organization (WCO), and regional organizations, such as the African Union, the Caribbean Community (CARICOM), the Organization of American States (OAS) and the Organization for Security and Cooperation in Europe (OSCE), has led to broadening the opportunities for outreach to Member

States and receiving more prompt responses to assistance requests. The increased use of the regional centres of the Office for Disarmament Affairs has added considerable value to regional outreach activities;

- (i) Outreach to civil society, in particular to industry and academia, was maintained.

4. Another influential factor that encouraged the positive results in 2014 was undoubtedly the events marking the tenth anniversary of the adoption of the resolution. The key event was the Security Council open debate held on 7 May 2014, which resulted in a presidential statement and interventions expressing support by more than 60 States from all regions of the world. That and the series of events dedicated to the anniversary gave impetus to the efforts to enhance the implementation of the resolution.

B. Monitoring and national implementation

5. In 2014, the Committee continued to facilitate and monitor the implementation by States of resolution 1540 (2004). In accordance with the twelfth and thirteenth programmes of work of the Committee (S/2013/327 and S/2014/369), its working group on monitoring and national implementation considered 68 matrices presented to them by the experts, 55 of which the Committee approved and sent to States for review. Those matrices are being converted into the new matrix template and revised since the last matrices were updated in 2010. Although the Committee did not meet the 31 May and 30 August deadlines for receiving all of the revised matrices in the twelfth and thirteenth programmes of work, the present objective is to complete the revision of all of the matrices by 30 April 2015. That will contribute to the comprehensive review of the implementation of the resolution, which is to be completed before December 2016.
6. In its resolution 1977 (2011), the Security Council called upon all States that have not yet done so to submit a first report to the Committee without delay. During the reporting period, two more States, Lesotho and Malawi, submitted their initial reports on the implementation of the resolution, bringing the total number of national implementation reports provided by States to 173. With the objective of achieving universal reporting, the Committee continued its efforts to encourage such reports, including participation in three workshops for non-reporting States, organized with the support of the United Nations Regional Centre for Peace and Disarmament in Africa (UNREC), in which most of the non-reporting States participated. In the margins of those workshops, the experts held bilateral discussions with some of those States. During the course of those discussions, the Committee experts assisted participating States in the drafting of their initial national implementation reports.
7. The Security Council, in its resolution 1977 (2011), encouraged States to provide on voluntary basis additional information on their implementation of resolution 1540 (2004), including on their effective national practices in implementing resolution 1540 (2004). During the 2014 reporting period, 24 States provided additional information, including on their

effective national practices, such as those related to preventing financial institutions from engaging in the financing of proliferation activities and strengthening controls to prevent the illicit trafficking of such weapons and related materials⁵, compared with 28 reports in 2013, 7 reports in 2012, 8 reports in 2011, 7 reports in 2010 and 5 reports in 2009. There was an increase in States reporting in a matrix format similar to the one approved by the Committee.

8. The 26 States that submitted either initial reports or additional information to the Committee in 2014 provided evidence that some had taken or recently have taken measures to implement the resolution. Armenia, Cuba, Japan, Jordan, the Russian Federation, Serbia, Spain and the former Yugoslav Republic of Macedonia provided the Committee with information in the matrix format, or a very similar form, with a range of information on the measures they have put in place as at 2014. Azerbaijan, Colombia, Guyana, Jordan, Lesotho, Malawi, Mongolia, Togo, Ukraine and the United Arab Emirates submitted narrative reports on the steps they have taken. Montenegro presented both a narrative report and a national action plan. The Czech Republic submission included both a narrative summary and a matrix, whereas Kyrgyzstan reported on the steps taken to implement the national action plan that it submitted in 2013, which also covered a wide range of its activities. Whereas most of the narrative reports addressed a broad range of implementation measures, some States highlighted specific aspects of their implementation efforts, such as export control measures by Ukraine and the United Arab Emirates or a focus on updates to the criminal code and the export control system by Montenegro. Although all of the reports included measures taken prior to 2014, at least four States reported legal measures taken in 2014, including the amendments to the Jordanian Criminal Code and articles 3 and 4 of its 2014 Terrorist Prevention Act, Decision No. 197 of the Government of Kyrgyzstan, approving the adoption of a national export control list and Interministerial Decree No. 014/053/MS/MEF/MAEC of 30 April 2014 of Togo, which established a preparatory committee for the establishment of a national radiation protection and nuclear safety and security authority. In addition to those legal measures, at least five States reported having taken other steps in 2014 to further implement the resolution, including the adoption of a plan to establish a comprehensive biological laboratory network in Armenia, the holding of training for specialists in biological security and the State Customs Service in detecting radiation at border crossings in Kyrgyzstan, the establishment of an inter-agency working group of a parliamentary body that reviewed the implementation of resolution 1540 (2004) in Mongolia, the submission of a national action plan by the former Yugoslav Republic of Macedonia and the establishment of an interministerial body to coordinate implementation of resolution 1540 (2004) in Togo.
9. In its resolution 1977 (2011), the Security Council also encouraged States to prepare on a voluntary basis national implementation action plans to map out their priorities and their plans for further implementing resolution 1540 (2004).
10. The Security Council, in its resolution 1977 (2011), also recognized the importance of the active engagement and dialogue of the Committee with States on their implementation of resolution 1540 (2004), including through visits to States at their invitation. In 2014, members of the Committee and its Group of Experts visited the Niger, Bangladesh, Malawi, China and the United Kingdom of Great Britain and Northern Ireland. The Committee has also responded positively to invitations from Mozambique and the Republic of Moldova. The visits provided an opportunity for States to provide updated information on the implementation of resolution 1540 (2004) and to identify achievements, gaps and assistance needs. During the visits, representatives and experts of the Committee met relevant national officials, including representatives at the ministerial level. The increase in the number of visits to States reflects the strengthened emphasis of the Committee on the importance of direct interaction with States. Following visits by the Committee, the Niger submitted its national implementation action plan and Malawi submitted its initial report. Both of those submissions included specific assistance requests.
11. In 2014, six States and four international, regional and subregional organizations and others submitted to the Committee information on relevant experiences, lessons learned and effective practices in the areas of concern of resolution 1540 (2004), in response to a letter from the Chair dated 6 November 2013 (S/AC.44/2013/OC.86), inviting such submissions. The replies have been uploaded to the Committee website and are contained in a dedicated section, which includes a compilation summarizing the effective practices detailed in those reports. In accordance with paragraph 12 of resolution 1977 (2011), the working group of the Committee on monitoring and national implementation, with the support of the Group of Experts, considered the compilation of effective practices, templates and guidance and a possible technical reference guide for resolution 1540 (2004).
12. Representatives from 60 States addressed the Security Council at its meeting to mark the tenth anniversary of the adoption of resolution 1540 (2004), entitled "Non-proliferation of weapons of mass destruction", held on 7 May 2014. Most of those States also reported on measures taken to implement the resolution. At the meeting, the President of the Security Council made a statement (S/PRST/2014/7) on behalf of the Council reaffirming that the proliferation of nuclear, chemical and biological weapons and their means of delivery constitutes a threat to international peace and security and calling upon all States to step up their efforts to implement resolution 1540 (2004), with a view to achieving full implementation of the resolution by

⁵ Includes a joint report by Australia and Germany as two reports.

2021. Those States and others provided information on the implementation of the resolution in the many activities conducted in the context of its tenth anniversary year, 2014. Those activities served to highlight the importance of resolution 1540 (2004) and encourage cooperative endeavours for the full and effective implementation of resolution 1540 (2004).

C. Assistance

13. In 2014, four States submitted new requests for assistance to the Committee, while four States submitted offers in response to those requests and some from 2013. In addition, seven international organizations sent 10 responses to requests from 2013 and 2014. In fulfilling its clearing-house function in a transparent manner, the Committee continued to post on its website the requests and offers of assistance. In its role of facilitating technical assistance by matching offers with requests for assistance, the Committee and its experts continued to undertake dialogue with potential assistance providers. They also continued to keep an up-to date consolidated list of assistance requests so that it can be referred to, as required, in response to requests for information and at the appropriate outreach events.
14. The Committee received a request for assistance from the Niger, which was included in their voluntary national implementation action plan. In addition, assistance requests from Malawi and Togo were included in their reports to the Committee, and Malawi submitted a second assistance request. Responses to the assistance request from the Niger were received from IAEA, the World Organization for Animal Health, WCO and the World Bank. Responses to an assistance request from Malawi were received from WCO, the World Organization for Animal Health and UNODC.
15. Assistance offers were received in response to the 2013 request from Grenada for legislative assistance for developing a regulatory mechanism for the compliance and implementation of resolution 1540 (2004), strengthening its institutional and regulatory framework for the management of chemicals and related materials, disposing of obsolete chemicals and enhancing capacity for detecting, testing and responding to chemical, biological, radiological and nuclear threats. Responses came from Argentina, South Africa and Spain, as well as from IAEA, UNODC, the World Organization for Animal Health, the International Maritime Organization (IMO) and the Missile Technology Control Regime. Grenada accepted the offer of assistance from South Africa, and in July 2014, members of the South African Non-Proliferation Council visited Grenada to discuss strategic trade controls. That visit was followed up by a visit to South Africa by a delegation from Grenada in September 2014, where they participated in a chemical assistance and protection course and undertook a collaborative drafting effort on their new strategic trade control bill with the assistance of representatives from South Africa. That visit was held in the context of a trilateral mentorship programme between South Africa, Grenada and OPCW, to which OPCW also contributed funding, and implemented as a result of the assistance request from Grenada.
16. During a meeting of the Committee working group on assistance, the delegation of the Russian Federation reported that its Ministry of Industry and Trade had provided export control assistance related to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (Biological Weapons Convention); the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Chemical Weapons Convention); and the confidence-building measures in the framework of the Comprehensive Nuclear-Test-Ban Treaty; as well as training in nuclear-related export controls, in response to an assistance request submitted by Kyrgyzstan in 2013. In September, Malawi submitted to the Committee a request for assistance in building the capacity of border management and security agencies in handling potential sources of chemical and biological weapons and in developing the human and technical capacity of those agencies to manage the threat posed by weapons of mass destruction; providing training for border security personnel and the relevant technology to assist in the detection of dual-use items that could be used in chemical and biological weapons; and strengthening biosecurity and infectious disease surveillance, detection and diagnostics. Malawi received offers for assistance in those areas from WCO, the World Organization for Animal Health and UNODC.
17. In response to the request by the secretariat of CARICOM to finance the position of a regional coordinator, Australia informed the Committee that its Government would finance a focal point position for CARICOM to strengthen implementation of non-proliferation and counter-terrorism obligations, including those related to resolution 1540 (2004), from the period 1 June to 31 December 2014.
18. The United Nations Regional Centre for Peace, Disarmament and Development in Latin America and the Caribbean (UNLIREC) has been supporting States in the Caribbean through a legislative assistance package to strengthen the implementation of resolution 1540 (2004) in the region. In that regard, national round tables were organized in Grenada, Jamaica and Trinidad and Tobago. Committee experts participated in those activities. Legislative studies were prepared for the Dominican Republic and Belize and will be presented to those States in early 2015. UNLIREC provided legal and technical assistance for the drafting of new legislation in Grenada and Jamaica, through a series of national work sessions and launched a similar assistance process in Trinidad and Tobago which is set to progress further in 2015. UNLIREC also supported the development of a voluntary national implementation action plan in Grenada.
19. The Australia Group formally informed the Committee of its willingness to provide assistance to Member States.
20. The Committee and its working group on assistance continued to work towards improving the effectiveness of its assistance mechanism. In particular, it focused on identifying and analysing assistance needs; facilitating matchmaking between assistance requests and offers; furthering the dialogue on assistance with

relevant international, regional, subregional and, as appropriate, non-governmental organizations; and increasing awareness of assistance issues.

21. Committee experts continued their consultations with officials from States and international organizations, in particular on existing and new assistance requests, including during visits to States and in the context of national round tables. For example, as a direct result of such visits and round tables, Malawi, the Niger and Togo submitted assistance requests. Furthermore, during other outreach events, the Committee experts also regularly discussed assistance matters and explained the clearing-house role of the Committee. Whereas assistance matters were raised at all meetings in which the experts participated, plans for a dedicated assistance conference to bring together those requesting assistance with potential providers was not realized. A regional approach to such engagement is under consideration.

D. Cooperation with international, regional, and subregional organisation

22. The Working Group on cooperation with international organizations, including the Security Council Committee pursuant to resolutions 1267 (1999) and 1989 (2011) and the Security Council Committee established pursuant to resolution 1373 (2001), discussed the strategy of the Committee established pursuant to resolution 1540 (2004) to engage international, regional and subregional organizations with the objective of guiding future cooperation with such organizations and developing ways of cooperating more closely with them, reflecting the variation in the capacity and mandate of each organization.
23. The collaboration between IAEA and the Committee increased in the area of nuclear security through bilateral discussions and participation in events, such as outreach and information exchange meetings, including Committee participation in a regional workshop on familiarizing Member States in Asia with Integrated Nuclear Security Support Plans.
24. OPCW collaboration with the Committee intensified, including through its invitation to the Chair to participate in the meeting of the open-ended working group in The Hague and inviting the Group of Experts to participate with others involved in the national implementation of the Chemical Weapons Convention in a subregional national capacity evaluation and training workshop for personnel of national authorities of State Parties from Pacific island States involved in the national implementation of the Convention, held in Brisbane, Australia, and in a regional meeting on education in the responsible application of knowledge of dual use chemicals in Latin America. The collaboration was also intensified within the framework of the Counter-Terrorism Implementation Task Force Working Group on Preventing and Responding to Weapons of Mass Destruction Attacks. In response to a request from the Committee, OPCW sent the Committee a report on its assistance activities in the implementation of articles VII and X of the Convention, including details of that organization's assistance to States that submitted assistance requests related to chemical weapons to the Committee.
25. The Committee continued its cooperation with the Biological Weapons Convention Implementation Support Unit. An expert participated in the annual Meeting of Experts, from 4 to 8 August, held in advance of the Meeting of States Parties to the Biological Weapons Convention. In addition, a former expert participated in a meeting on the implementation of the Convention in Burkina Faso, on behalf of the Committee.
26. Other partners continued to engage the Committee and its experts on a regular basis, especially INTERPOL and WCO. With the commitment by INTERPOL to include resolution 1540 (2004) in its training programmes, the experts participated in and spoke at a series of its chemical, biological, radiological, nuclear and explosives terrorism prevention courses in Ethiopia, Poland, Tajikistan and Thailand. The Secretary General of the World Customs Organization addressed the Committee in an open briefing organized by the Committee reaffirming a cooperative partnership with the objective of advancing further the areas of mutual interest, such as the WCO strategic trade control enforcement project. Committee experts participated as keynote speakers at the second WCO Global Seminar on Strategic Trade Controls Enforcement and in the meeting of the thirty-third session of the Enforcement Committee of WCO.
27. The Committee and its experts participated in a meeting of the Global Partnership against the Spread of Weapons and Materials of Mass Destruction, held in Russia. The meeting was the continuation of the discussions and interactions between the Committee experts and members of the Global Partnership, in particular in relation to the subject of assistance.
28. The Committee and its experts interacted with the Financial Action Task Force in areas of mutual interest. They participated in relevant activities also attended by representatives of the Task Force or its regional bodies, such as with the Asia/Pacific Group on Money Laundering at the Asia Regional Seminar in Seoul in October 2014.
29. During the reporting period, representatives of the Asia/Pacific Group on Money Laundering, the Food and Agriculture Organization of the United Nations, IAEA, IMO, INTERPOL, the World Organization for Animal Health, OPCW, WCO and the World Health Organization participated with members and experts of the Committee in international outreach events. That participation offered many opportunities to raise the awareness of States of their common objectives in the areas of non-proliferation and international cooperation.
30. Regional and subregional organizations continued to play an important role in enhancing the implementation of resolution 1540 (2004). Cooperation with the African Union on resolution 1540 (2004) increased as a result of the public statement by the Chairperson of the African Union Commission on the occasion of the tenth anniversary of the adoption of resolution 1540 (2004), which reiterated their commitment to work towards the effective implementation of that resolution in Africa. That cooperation was reinforced by the publication in 2014 of the report of the workshop on the implementation of resolution 1540 (2004) in Africa, hosted by the

African Union Commission in Addis Ababa. The Commission also hosted a meeting on national points of contact with regard to resolution 1540 (2004) in November 2014. The participants at the meeting agreed on the need for a training course for national points of contact and expressed a preference for such training to be conducted on a regional basis.

31. OSCE enhanced its cooperation with the Committee, in particular through inviting Committee experts to participate in the voluntary national implementation action plan consulting sessions with representatives from the Governments of Armenia, Kyrgyzstan, Tajikistan and Uzbekistan, organized by OSCE in cooperation with the Office for Disarmament Affairs. OSCE also organized a number of workshops and capacity-building events in the region, in which Committee members and experts participated, including a meeting of OSCE points of contact with regard to resolution 1540 (2004), at which 27 national points of contact participated, a national seminar on resolution 1540 (2004) in Turkmenistan, a dialogue meeting of Forum for Security and Cooperation under the chairmanship of the Republic of Moldova, in which the Chair of the Committee participated, and three events for international and regional organizations held in Austria, which were organized by OSCE and supported by the Office for Disarmament Affairs. With 27 out of the 57 OSCE participating States in attendance, that meeting was a starting point for further coordination activities within that network. The consulting sessions on voluntary national implementation action plans with the representatives of OSCE participating States were valuable in facilitating the effective and sustained implementation of resolution 1540 (2004). The submission of the national implementation action plans from Croatia, Montenegro and the former Yugoslav Republic of Macedonia was also due to the collaborative work between OSCE, the Office for Disarmament Affairs, the Committee and its experts.
32. The CARICOM programme on resolution 1540 (2004) continued to assist its member States in meeting national commitments to the resolution. In 2014, for example, an inter-agency round table on the resolution with Haitian officials, organized by CARICOM and the Government of Haiti (a non-reporting State), was held in the context of the objective to achieve universal reporting. The CARICOM programme also lent support to the important areas of commodity identification training and the promotion of the Committee's direct interaction with States.
33. OAS increased its operational support for the work of the Committee in 2014. OAS and the Government of Colombia officially launched that country's voluntary national implementation action plan and launched Mexico's voluntary national implementation action plan in December. OAS also dedicated a meeting to support for implementation of resolution 1540 (2004) at the hemispheric level, held in Washington, D.C., where it noted its intention to seek a regional coordinator to support the implementation of the resolution.
34. Several international and regional organizations also provided the Committee information on effective practices. In response to the Chair's letter encouraging the sharing of experience,

lessons learned and effective practices in the areas of concern of resolution 1540 (2004), dated 6 November 2013, the League of Arab States, the Association of Southeast Asian Nations, IAEA and the Nuclear Suppliers Group made submissions.

35. A seminar on effective practices for the implementation of resolution 1540 (2004) was organized by the Regional Arms Control Verification, Implementation and Assistance Centre for Security Cooperation (RACVIAC) in cooperation with the Office for Disarmament Affairs and the Government of Croatia. The seminar provided a chance for the participants to share their practical experience with a view to improving their national implementation measures and facilitating the identification of effective practices.

Cooperation with United Nations entities

36. The Group of Experts, as an entity of the Counter-Terrorism Implementation Task Force, continued its active participation in work related to implementing the United Nations Global Counter-Terrorism Strategy, notably its various thematic working groups and annual retreat.
37. The Committee continued its cooperation with the Security Council Committee established pursuant to resolution 1373 (2001) and the Security Council Committee established pursuant to resolutions 1267 (1999) and 1989 (2011) and their experts, within their respective mandates, including through joint or coordinated outreach activities. In 2014, the Group of Experts participated in country visits to Malta and Mongolia that were led by the Council Committee established pursuant to resolution 1373 (2001), which allowed the Group of Experts to engage with the appropriate officials in those countries on the full range of obligations related to resolution 1540 (2004).
38. In May, with the counter-terrorism-related committees, the Committee briefed the Security Council on the continuing cooperation among the three Committees and their respective expert groups. The Committee also briefed the Council on its activities. In an exception to their usual joint briefings, the schedule of which will be resumed in 2015, the three Committees gave separate briefings to the Security Council in November. The experts of the three Committees continued to share relevant information and to meet, when appropriate, in order to discuss issues of common concern, coordinate actions and exchange information. In addition, the Group of Experts regularly participated in thematic briefings of mutual interest organized by the Security Council Committee established pursuant to resolution 1373 (2001). Another step in the collaboration between the Committees was the designation of a shared focal point for the Caribbean region. That position is hosted by CARICOM and funded by the Government of Australia (see also para. 17).
39. The Committee continued its close cooperation with UNODC on aspects of their mandates that overlap. Examples of that cooperation include the participation by UNODC in meetings related to the work of the Committee, such as the international and regional organizations week and the regional seminar on Asia, held in the Republic of Korea, and participation by Committee experts in a workshop on the

promotion of the ratification of the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material and of the implementation of its criminalization provisions by selected Asian and Pacific island countries, held in Thailand.

40. Discussions continued between the Committee and the United Nations Interregional Crime and Justice Research Institute and the United Nations Institute for Disarmament Research on potential programmes and activities in support of the effective implementation of resolution 1540 (2004). They were aided by the Chair's participation in an event on meeting the challenges of international security through chemical, biological, radiological and nuclear national action plans, held in New York and organized by the Government of Georgia in cooperation with the Institute.
41. Cooperation with UNREC, UNLIREC and the United Nations Regional Centre for Peace and Disarmament in Asia and the Pacific (UNRCPD) was intensified by the Committee and its experts, in cooperation with the Office for Disarmament Affairs, with a view to increasing the role of the Centres in supporting outreach to enhance the implementation of resolution 1540 (2004). Examples of that cooperation were the collaboration between UNREC and the Committee, supported by the Office, in organizing three workshops for the implementation of resolution 1540 (2004) in Gabon, South Africa and Togo and implementation round tables in Gabon and Togo. In Peru, with UNLIREC and supported by the Office, the experts participated in a national round table on the implementation of resolution 1540 (2004) and in a regional workshop for South American States. The experts, in collaboration with UNRCPD, assisted Bangladesh with the development of its voluntary national implementation action plan during the Committee's visit at that country's invitation.

Civil society and the private sector

42. In its resolution 1540 (2004), the implementation of which is the responsibility of States, the Security Council called upon all States to develop appropriate ways to work with and inform industry and the public regarding their obligations emanating from national laws implementing the resolution. The Committee and its experts continued where appropriate to reach out to industry and the public with consent of the States to generate wider awareness of the resolution and to facilitate its effective implementation.
43. As part of the effort to reach out to industry, Germany continued to invite the Committee to participate in the "Wiesbaden process", and the Chair and a Committee expert participated in the third Wiesbaden industry conference, organized in cooperation with the Office for Disarmament Affairs and the European Union-Outreach in Export Control of Dual-Use Items Programme. The conference focused on governance and compliance management and provided a platform for raising awareness of resolution 1540 (2004) and the sharing of effective practices among diverse sectors of industry on nuclear, chemical and biological security-related matters, in particular on compliance management issues. In September, a member

of the Group of Experts also participated in a symposium for the shipping and transportation sector on managing proliferation risk in Singapore. To assist in developing appropriate ways to work with and inform industry in the implementation of resolution 1540 (2004), Australia and Germany submitted a paper on effective practices for engaging industry in the development and implementation of export controls.

44. Civil society representatives, often through the Office for Disarmament Affairs, involved the Committee and its experts in many outreach events. Examples of such events include:
 - A workshop on the identification of effective implementation practices by examining resolution 1540 (2004) after a decade of its existence
 - A workshop on bridging the security-development divide and resolution 1540 (2004)
 - A meeting to discuss new activities to be undertaken by the Institute for Security Studies, held in Pretoria
 - A meeting on resolution 1540 (2004) 10 years on: preventing non-State actors from acquiring weapons of mass destruction, organized by King's College London
 - A meeting on preventing proliferation through intangible technology transfer and balancing academic freedom and non-proliferation: a role for resolution 1540 (2004), organized by King's College London

A fuller description of the meetings, including organizers and sponsors, may be found in enclosure 1. Other examples of the involvement of civil society in the process of implementing resolution 1540 (2004) in 2014 were the inclusion of resolution 1540 (2004) in the curriculum of the Security and Strategic Trade Management Academy of the Center for International Trade and Security of the University of Georgia in the United States of America and the focus on activities related to the resolution by the diplomatic academy of Mexico (El Instituto Matías Romero) and the James Martin Center for Nonproliferation Studies in the United States in their training. Committee members, experts, Governments, professional associations, universities, colleges and institutes and non-governmental organizations participated in outreach events and engaged with students, reflecting the continued and wide-ranging interest in the effective implementation of resolution 1540 (2004). New topics, such as intangible technology transfer, the strong link between arms control and disarmament and achieving the goals of the resolution, were introduced.

E. Transparency and outreach

45. Transparency makes an important contribution to enhancing confidence, fostering greater cooperation and raising the awareness of States, relevant international, regional and subregional organizations, civil society and the private sector regarding issues relevant to resolution 1540 (2004). Among other benefits, transparency alerts States, organizations, institutions and others to opportunities to assist with or contribute to the effective implementation of the resolution in their areas of expertise and competency. It not only informs industry, for

example, of the obligations of the resolution, but it also helps them to implement those obligations effectively and efficiently. It thereby facilitates the effective implementation of the resolution by States.

46. Direct outreach to States, relevant international, regional and subregional organizations, civil society and the private sector is essential, and the Committee website is a vital tool to raise public awareness regarding issues relevant to resolution 1540 (2004), its obligations and its continuing importance and relevance. The website provides interested parties with a rich source of information on the work and activities of the Committee, the steps already taken by Member States, effective practices and Member States' plans to implement the resolution.
47. During the reporting period, web-based transparency was strengthened through regular updates to the website with support from the Office for Disarmament Affairs, including on points of contact, assistance requests and offers, listings of outreach events and information notes on the outcomes of those events, as well as relevant statements and presentations by Committee members and experts. Increased transparency on the status of implementation also flows from the posting of all reports submitted by States, with their consent, including reports in the form of a matrix. During 2014, the website had 60,316 visits, which represented an increase of 22 per cent compared with the previous year. Over the past two years there has been almost a 50 per cent increase in the number of visits to the website.
48. Outreach activities are one of the principal tools that assist the Committee in utilizing its limited resources efficiently to reach wider and targeted audiences. In 2014, there were 89 outreach events in which the Chair, Committee Members and experts participated. The Chair participated in 8 of those activities; Committee members in 12; and the Group of Experts in 76. The participation of Committee experts in seven events was fully or partially sponsored by the organizers or sponsors, that is, from sources other than the funds administered by the Office for Disarmament Affairs. A list of events in which Committee members and the experts participated is contained in enclosure 1. Contained in enclosure 2 is a list of events to which Committee members and/or the experts were invited but did not participate.
49. The screening of the short film *Weapons of mass destruction: threats and global responses* was organized by the Office for Disarmament Affairs in cooperation with the Foreign Press Association and the Permanent Mission of the Republic of Korea to the United Nations. The film was also shown at a number of outreach events, including in Cambodia, China, Colombia, Germany, Mexico, Peru and the Republic of Korea. It is available on the Committee website.
50. The Committee noted with appreciation the publication of the journal *1540 Compass*, which focuses specifically on the practical implementation of resolution 1540 (2004). It was launched in 2012 and is published by the Center for International Trade and Security of the University of Georgia, United States, in cooperation with the Office for Disarmament Affairs. In the fourth quarter of 2014, it published its seventh issue, which contained articles

written by authors drawn from academia, the business sector, government, non-governmental organizations and the Group of Experts.

51. The working group of the Committee on transparency and media outreach continued to consider ways to improve outreach, for example, through a systematic effort to maintain an up-to-date and expanded contact list. The working group also invited a representative of the International Nuclear Security Education Network to brief the working group to improve its understanding of the effective ways to reach out to academia and to ascertain the extent to which the Network could support the needs of Member States to implement the resolution. More than 100 universities from all regions of the world are part of the Network, which operates under the auspices of the IAEA Nuclear Security Programme.
52. Specific outreach to the media included a briefing of the United Nations Correspondents Association by the Chair of the Committee and an expert. In 2014, 17 press releases were published by the Organization on events related to the resolution, compared with 5 such releases in 2013.
53. The tenth anniversary of the unanimous adoption by the Security Council of resolution 1540 (2004) was marked 28 April 2014. The tenth anniversary year provided an important opportunity to reflect on the accomplishments achieved during the previous 10 years, to review the status of resolution 1540 (2004) and to look forward. Of major importance was the Security Council debate and the presidential statement of 7 May (S/PRST/2014/7) on behalf of the Council reaffirming that the proliferation of nuclear, chemical and biological weapons and their means of delivery constitutes a threat to international peace and security (see para. 9 above). The Secretary-General delivered a video message on the tenth anniversary that emphasized the continuing relevance of the resolution in which he called upon all States to intensify efforts to stop the proliferation of nuclear, chemical and biological weapons. Also marking the tenth anniversary, the Council held a meeting entitled "Non-proliferation of weapons of mass destruction" on 7 May 2014, at which 60 States spoke on their support for the effective implementation of resolution 1540 (2004). Activities conducted during 2014 in the context of the tenth anniversary served to highlight the importance of the resolution and to energize cooperative endeavours for its full and effective implementation.

They include:

- A workshop to examine the resolution after a decade of existence, held in India
- A round table on ten years of resolution 1540 (2004): global and regional efforts in non-proliferation of weapons of mass destruction, held in Geneva
- A workshop on the contribution of resolution 1540 (2004) to regional and global disarmament and non-proliferation, seminar on the occasion of the tenth anniversary, held in Kazakhstan
- A press release by the African Union marking the anniversary of the resolution, emphasizing its

relevance and reiterating the commitment of the Union to work towards its effective implementation in Africa

- The publication by the University of Georgia Center for International Trade and Security of a special edition devoted to the tenth anniversary of the resolution
- The release of the documentary film *Weapons of mass destruction: threats and global responses*, produced by the Office for Disarmament Affairs
- A panel discussion on the tenth anniversary of resolution 1540 (2004) co-organized by the Permanent Missions of Mexico and Spain to the United Nations, held in New York
- A regional workshop on promoting the full implementation of the resolution: sharing effective practices, revitalizing assistance and developing future strategies, hosted by the Government of the Republic of Korea and held in Seoul
- A workshop on resolution 1540 (2004) 10 years on: preventing non-State actors from acquiring weapons of mass destruction, held in London

Those events engaged the time, resources and energies of many, including Committee members, experts, the Governments of Kazakhstan, Mexico, Spain, Switzerland, the United Kingdom and the United States and international organizations and institutions, including the African Union, CARICOM, OSCE, WCO, the Office for Disarmament Affairs, UNODC, the University of Georgia in the United States, King's College London in the United Kingdom and the Institute for Defence Studies and Analyses in India.

54. A joint statement at the 2014 Nuclear Security Summit by 32 Governments noted the tenth anniversary of resolution 1540 (2004) and promoted the full and universal implementation of the resolution. The statement contains a number of commitments by the States concerned to support efforts to advance the implementation of the resolution, including through assistance to States that need it and financial support for the Committee in the conduct of its activities. It also requested that the statement and the commitments therein be taken into account in the upcoming comprehensive review.

F. Administration and resources

55. The Committee held six formal meetings and three informal meetings. Its working groups conducted 14 meetings.
56. In 2014, the Republic of Korea made a grant of \$1 million to the Trust Fund for Global and Regional Disarmament Activities to support the practical implementation of resolution 1540 (2004). That contribution was in addition to those made in previous years by Andorra, Denmark, Kazakhstan, New Zealand, Norway, Spain, the United Kingdom, the United States,

the European Union and the Carnegie Corporation of New York.

57. The Committee noted that, using those extrabudgetary funds, the Office for Disarmament Affairs organized, co-organized or supported 42 conferences, workshops, seminars, country-specific dialogues and other events on the implementation of resolution 1540 (2004) in 2014 (see enclosure 1). The Committee welcomes those activities in support of the Committee and its experts

IV. Assessment and analysis

58. As called for in its twelfth and thirteenth programmes of work, the Committee made a substantial effort to move towards universal reporting, building on the engagement in 2013 with the missions in New York of those States that have yet to report to the Committee, and with the African Union, including specialized workshops for non-reporting States and engagement with non-reporting States at other events. Additional results from those substantial interactions could come in 2015, if contact is maintained in that regard.
59. The 2013 request from the Committee to all States for additional information or initial reports and the 2014 request for information on effective practices is clearly associated with the increase in national reports in those years (see para. 5), and the Committee should encourage that trend. The Committee should continue to promote engagement with Member States and assist with providing the Committee with the information necessary for it to monitor compliance. In addition, the Committee should review which of its efforts have proved effective in eliciting reports and explore new and more innovative ways to stimulate national reporting, particularly for those States that have not yet presented their first reports and those that have reported only once since 2004.
60. With regard to matrices, the deadline set in the current programme of work was not met. The Committee notes that having the most accurate and up-to-date data in the matrices, with each State having ample opportunity to review its matrix to ensure accuracy, is important for preparing the annual reports. That is especially so to ensure the efficient conduct of the upcoming comprehensive review to be completed by December 2016, as called for in resolution 1977 (2011). Accordingly, the Committee should give high priority to that task in the first half of 2015.
61. The Committee recognizes the value of the information provided in the matrices as a unique source of global data on measures taken by States to prevent the proliferation of weapons of mass destruction and their delivery to non-State actors and on the appropriate control of related materials.
62. Given the importance of the database, in 2015 the Committee should consider steps to avoid lengthy gaps in the updating of the matrices, such as implementing a continuous process of revision and Committee approval according to a schedule for all 193 Member States. That would help to ensure that the most up-to-date information is available for its annual reports and the comprehensive review. The methods of collection, storage and management of the data merits careful study in the 2016 comprehensive review, with a view to devising a strategy for the efficient compilation and use of those data.

63. The response to the letter dated 6 November from the Chair of the Committee to Member States and international organizations that called for the submission of effective practices brought some responses in 2014, as noted above in paragraph 11. The Committee should consider ways to elicit more responses, such as through dedicated events such as peer reviews, visits to States and national round tables or by sending another letter encouraging the submission of reports of effective practices. Any effort by the Committee should stress that the reports of such practices should be "in a searchable, accessible format so that the practices might be used in providing further general and specific guidance" (as stated in the thirteenth programme of work).
64. The Committee takes note of the steady increase in voluntary national implementation action plans. As noted in paragraphs 31 and 33, experience in 2014 indicates that regional and subregional organizations have a role in convening activities to promote the development and implementation of voluntary national implementation action plans. The Committee noted that voluntary national implementation action plans often contained requests for assistance related to capacity-building, which indicates that the implementation of resolution 1540 (2004) is becoming embedded in the routine implementation activities of States. The Committee should assess those plans for opportunities to obtain information and feedback on the implementation, as was the case with the review requested by Kyrgyzstan in December 2014.
65. With regard to assistance, continuous updating of the consolidated list of assistance requests in 2014 has enabled the delivery of timely and accurate responses to requests to the Committee for information. Collecting accurate data for the list remains a challenge, since States do not keep the status of their requests up-to-date in their reports to the Committee, despite requests to do so. Whenever the opportunity arises during the course of direct interaction with States, the experts should seek an update on offers and requests for assistance and reflect changes in the consolidated list.
66. More attention and resources are still required for the assistance mechanism to prompt well-designed requests for assistance and effective responses to those requests. The Committee recognizes the need for a dedicated dialogue with and among States on the implementation of resolution 1540 (2004) to ensure that the assistance given to requesting States corresponds to their national circumstances, priorities and needs. Other than its provision of information and technical expertise, the Committee relies on the responses from Member States and international organizations. The Committee should consider ways to provide assistance, especially as a real-time response to requests made during the course of dialogue with States, such as finding and using additional resources, including the potential use of the Trust Fund for Global and Regional Disarmament Activities. The Fund could be used to finance small-scale projects deriving from the Committee's direct interaction with States that enable the Committee and its experts to better define requests and engage possible assistance providers at an early stage⁶.
67. The commitment of some regional and subregional organizations to helping their members implement
- the resolution also suggests that the Committee should consider supporting regional approaches to assistance, such as through regional assistance meetings. In 2015, the Committee will review a non-paper being drafted by the experts on that topic. Enhancing the assistance mechanism should be a theme in the comprehensive review.
68. The increased number of formally notified points of contact, including for assistance and particularly from international organizations at national and regional events, is an important development in improving the response time for assistance requests and other matters. In 2015, the Committee should take steps to develop and implement a strategy for making effective use of the points of contact in promoting the implementation of the resolution and the work of the Committee, including the preparations for the comprehensive review. There has been an encouraging move at the regional level to encourage national points of contact, as shown by the efforts of OSCE and the African Union. That development should be encouraged further. The development of training courses conducted at the regional level for points of contact merits consideration in the 2015 programme of work in accordance with Committee strategy and objectives.
69. The engagement by the Committee and its experts with relevant international organizations has reached a satisfactory level and care should be taken to maintain that level of cooperation. As noted in section III.C, the Committee and its experts have had substantial and positive engagement with key international organizations and other United Nations bodies. In 2015, the Committee, including through its working group on cooperation, should review and implement its objectives for cooperation with different international and regional organizations. It should continue such activities as the joint country visits with the Counter-Terrorism Committee Executive Directorate, the regular exchange of calendars of activities with appropriate organizations, and the collaboration with the Financial Action Task Force and its regional bodies.
70. The experience with the African Union, CARICOM, the Commonwealth of Independent States, the OSCE, and the regional branches of the Office for Disarmament Affairs suggests that the existence of dedicated organizational staff and points of contact has been very positive in promoting implementation of the resolution at the local level. The Committee should continue to promote the concept of regional coordinators, or assigned staff arrangements, where appropriate, noting the merits of drawing synergies with the implementation of related Security Council obligations.
71. With regard to outreach to civil society, including industry, the Committee welcomed the participation of Committee members and experts in nine dedicated civil society events in various parts of the world and the continuation of industry events in Wiesbaden, Germany, the Republic of Korea, and Japan. The support of the Office for Disarmament Affairs and extrabudgetary funding for the majority of those events was vital to their success. The Committee looks forward to further outreach in 2015 to build on the practical gains made in 2014, including in helping States, at their request, to work with and inform industry and the civil society. The Committee has unrivalled information on national efforts to conduct such outreach, and several States submitted information on effective outreach practices. It will be important to draw on the themes discussed at those events and on contacts made at them for the comprehensive review.

⁶ The Trust Fund for Global and Regional Disarmament Activities is administered under the responsibility of the Office for Disarmament Affairs. Assistance from the Fund must be in line with United Nations rules and regulations and with existing and future donor agreements made with the Office.

72. On the subject of transparency and outreach, in 2014, the number of outreach events (87) in which Committee members and experts participated was close to that of 2013 (90). The demand from Member States and international organizations for participation by Committee members and experts continues to support a welcome awareness-raising of resolution 1540 (2004) and its obligations and may reflect the recognition of the tenth anniversary year of the resolution. In line with its programme of work, the Committee should endeavour to encourage that trend to continue despite resource constraints.
73. The Committee welcomes the national, regional and international activities in support of resolution 1540 (2004), many of which were supported through the Trust Fund for Global and Regional Disarmament Activities. Accordingly, the Committee encourages those in a position to do so to consider contributing to support such activities, including through donations to the Trust Fund to facilitate the implementation of the resolution in line with its programme of work.
74. While the Inter-Parliamentary Union (IPU), formally notified the Committee of its point of contact, there were no direct interactions with parliamentary organizations in 2014 apart from an informal discussion with the Secretary-General of the Inter-Parliamentary Union, in which the coordinator of working group IV, a member of the Group of Experts and the Office for Disarmament Affairs participated. Outreach to parliamentarians remains an important yet underdeveloped response to a recommendation from the 2009 comprehensive review. In 2015, the Committee should make a special effort to engage with appropriate parliamentary institutions, such as IPU, to raise awareness of resolution 1540 (2004) and its legislative requirements.
75. The Committee should include in its fourteenth programme of work preparations for the conduct of the comprehensive review due to be submitted to the Council before December 2016. Drawing on experience from 2014 and previous years, the Committee should develop a plan that will identify the objectives, scope, timing and participants by 31 March 2015. Where appropriate, the Committee and its experts should draw on outside sources of expertise to assist in those efforts, including the Office for Disarmament Affairs and other United Nations bodies. To assist in those efforts, the Group of Experts should be tasked to prepare a non-paper on the conduct of the comprehensive review for the Chair by 28 February 2015. The Committee, with the assistance of its experts, should develop and begin execution of a strategy in line with that plan no later than 30 September 2015.
76. The requirement to deliver the report on the comprehensive review to the Security Council no later than 30 November 2016 means that the first draft of the report should be in the hands of the Committee by 1 September 2016. To ensure that the schedule is met, the Committee could oversee the work itself or consider appointing an open-ended steering group of members of the Committee.
77. The Committee recommends that the format and style of future annual reviews be revised to provide more analysis of trends in implementation and to provide more insights and data regarding the implementation activities of Member States.

The United Nations Global Counter-Terrorism Strategy

[Excerpts reproduced from A/RES/60/288,
8 September 2006]

The General Assembly,

Guided by the purposes and principles of the Charter of the United Nations and *reaffirming* its role under the Charter, including on questions related to international peace and security,

Reiterating its strong condemnation of terrorism in all its forms and manifestations, committed by whomever, wherever and for whatever purposes, as it constitutes one of the most serious threats to international peace and security,

Reaffirming the Declaration on Measures to Eliminate International Terrorism, contained in the annex to General Assembly resolution 49/60 of 9 December 1994, the Declaration to Supplement the 1994 Declaration on Measures to Eliminate International Terrorism, contained in the annex to General Assembly resolution 51/210 of 17 December 1996, and the 2005 World Summit Outcome, in particular its section on terrorism,

Recalling all General Assembly resolutions on measures to eliminate international terrorism, including resolution 46/51 of 9 December 1991, and Security Council resolutions on threats to international peace and security caused by terrorist acts, as well as relevant resolutions of the General Assembly on the protection of human rights and fundamental freedoms while countering terrorism,

Recalling also that at the 2005 World Summit Outcome world leaders rededicated themselves to support all efforts to uphold the sovereign equality of all States, respect their territorial integrity and political independence, to refrain in our international relations from the threat or use of force in any manner inconsistent with the purposes and principles of the United Nations, to uphold resolution of disputes by peaceful means and in conformity with the principles of justice and international law, the right to self-determination of peoples which remain under colonial domination or foreign occupation, non-interference in the internal affairs of States, respect for human rights and fundamental freedoms, respect for the equal rights of all without distinction as to race, sex, language or religion, international cooperation in solving international problems of an economic, social, cultural or humanitarian character and the fulfillment in good faith of the obligations assumed in accordance with the Charter,

Recalling further the mandate contained in the 2005 World Summit Outcome that the General Assembly should develop without delay the elements identified by the Secretary-General for a counter-terrorism strategy, with a view to adopting and implementing a strategy to promote comprehensive, coordinated and consistent responses, at the national, regional and international levels, to counter terrorism, which also takes into account the conditions conducive to the spread of terrorism,

Reaffirming that acts, methods and practices of terrorism in all its forms and manifestations are activities aimed at the destruction of human rights, fundamental freedoms and democracy, threatening territorial integrity, security of States and destabilizing legitimately constituted Governments, and that the international community should take the necessary steps to enhance cooperation to prevent and combat terrorism,

Reaffirming also that terrorism cannot and should not be associated with any religion, nationality, civilization or ethnic group,

Reaffirming further Member States' determination to make every effort to reach an agreement on and conclude a comprehensive convention on international terrorism, including by resolving the outstanding issues related to the legal definition and scope of the acts covered by the convention, so that it can serve as an effective instrument to counter terrorism,

Continuing to acknowledge that the question of convening a high level conference under the auspices of the United Nations

to formulate an international response to terrorism in all its forms and manifestations could be considered,

Recognizing that development, peace and security, and human rights are interlinked and mutually reinforcing,

Bearing in mind the need to address the conditions conducive to the spread of terrorism,

Affirming Member States' determination to continue to do all they can to resolve conflict, end foreign occupation, confront oppression, eradicate poverty, promote sustained economic growth, sustainable development, global prosperity, good governance, human rights for all and rule of law, improve intercultural understanding and ensure respect for all religions, religious values, beliefs or cultures,

1. Expresses its appreciation for the report "Uniting against terrorism: recommendations for a global counter-terrorism strategy" (doc. A/60/825), submitted by the Secretary-General to the General Assembly;
2. Adopts the present resolution and its annex as the United Nations Global Counter-Terrorism Strategy ("the Strategy");
3. Decides, without prejudice to the continuation of the discussion at its relevant committees of all their agenda items related to terrorism and counter-terrorism, to undertake the following steps for the effective follow-up of the Strategy:
 - a. To launch the Strategy at a high-level segment of its sixty-first session;
 - b. To examine in two years progress made in implementation of the Strategy, and to consider updating it to respond to changes, recognizing that many of the measures contained in the Strategy can be achieved immediately, some will require sustained work through the coming few years, and some should be treated as long term objectives;
 - c. To invite the Secretary-General to contribute to the future deliberations of the General Assembly on the review of the implementation and updating of the Strategy;
 - d. To encourage Member States, the United Nations and other appropriate international, regional and sub-regional organizations to support the implementation of the Strategy, including through mobilizing resources and expertise;
 - e. To further encourage non-governmental organizations and civil society to engage, as appropriate, on how to enhance efforts to implement the Strategy.
4. Decides to inscribe in the provisional agenda of its sixty-second session an item entitled "The United Nations Global Counter-Terrorism Strategy".

ANNEX

Plan of Action

We, the States Members of the United Nations, resolve:

1. To consistently, unequivocally and strongly condemn terrorism in all its forms and manifestations, committed by whomever, wherever and for whatever purposes, as it constitutes one of the most serious threats to international peace and security.
2. To take urgent action to prevent and combat terrorism in all its forms and manifestations and, in particular:
 - a. To consider becoming parties without delay to the existing international conventions and protocols against terrorism, and implementing them, and to make every effort to reach an agreement on and conclude a comprehensive convention on international terrorism;
 - b. To implement all General Assembly resolutions on measures to eliminate international terrorism, and relevant General Assembly resolutions on the protection of human rights and fundamental freedoms while countering terrorism;
 - c. To implement all Security Council resolutions related to international terrorism and to cooperate fully with the

counter-terrorism subsidiary bodies of the Security Council in the fulfillment of their tasks, recognizing that many States continue to require assistance in implementing these resolutions.

3. To recognize that international cooperation and any measures that we undertake to prevent and combat terrorism must comply with our obligations under international law, including the Charter of the United Nations and relevant international conventions and protocols, in particular human rights law, refugee law and international humanitarian law.

I. Measures to address the conditions conducive to the spread of terrorism

We resolve to undertake the following measures aimed at addressing the conditions conducive to the spread of terrorism, including but not limited to prolonged unresolved conflicts, dehumanization of victims of terrorism in all its forms and manifestations, lack of rule of law and violations of human rights, ethnic, national and religious discrimination, political exclusion, socio-economic marginalization, and lack of good governance, while recognizing that none of these conditions can excuse or justify acts of terrorism:

1. To continue to strengthen and make best possible use of the capacities of the United Nations in areas such as conflict prevention, negotiation, mediation, conciliation, judicial settlement, rule of law, peacekeeping and peacebuilding, in order to contribute to the successful prevention and peaceful resolution of prolonged unresolved conflicts. We recognize that the peaceful resolution of such conflicts would contribute to strengthening the global fight against terrorism.
2. To continue to arrange under the auspices of the United Nations initiatives and programmes to promote dialogue, tolerance and understanding among civilizations, cultures, peoples and religions, and to promote mutual respect for and prevent the defamation of religions, religious values, beliefs and cultures. In this regard, we welcome the launching by the Secretary-General of the initiative on the Alliance of Civilizations. We also welcome similar initiatives that have been taken in other parts of the world.
3. To promote a culture of peace, justice and human development, ethnic, national and religious tolerance, and respect for all religions, religious values, beliefs or cultures by establishing and encouraging, as appropriate, education and public awareness programmes involving all sectors of society. In this regard, we encourage the United Nations Educational, Scientific and Cultural Organization to play a key role, including through inter-faith and intra-faith dialogue and dialogue among civilizations.
4. To continue to work to adopt such measures as may be necessary and appropriate and in accordance with our obligations under international law to prohibit by law incitement to commit a terrorist act or acts and prevent such conduct.
5. To reiterate our determination to ensure the timely and full realization of the development goals and objectives agreed at the major United Nations conferences and summits, including the Millennium Development Goals. We reaffirm our commitment to eradicate poverty and promote sustained economic growth, sustainable development and global prosperity for all.
6. To pursue and reinforce development and social inclusion agendas at every level as goals in themselves, recognizing that success in this area, especially on youth unemployment, could reduce marginalization and the subsequent sense of victimization that propels extremism and the recruitment of terrorists.
7. To encourage the United Nations system as a whole to scale up the cooperation and assistance it is already conducting in the fields of rule of law, human rights and good governance, to support sustained economic and social development.
8. To consider putting in place, on a voluntary basis, national systems of assistance that would promote the needs of victims of terrorism and their families and facilitate the normalization of their lives. In this regard, we encourage States to request the

relevant United Nations entities to help them to develop such national systems. We will also strive to promote international solidarity in support of victims and foster the involvement of civil society in a global campaign against terrorism and for its condemnation. This could include exploring at the General Assembly the possibility of developing practical mechanisms assistance to victims.

II. Measures to prevent and combat terrorism

We resolve to undertake the following measures to prevent and combat terrorism, in particular by denying terrorists access to the means to carry out their attacks, to their targets and to the desired impact of their attacks:

1. To refrain from organizing, instigating, facilitating, participating in, financing, encouraging or tolerating terrorist activities and to take appropriate practical measures to ensure that our respective territories are not used for terrorist installations or training camps, or for the preparation or organization of terrorist acts intended to be committed against other States or their citizens.

2. To cooperate fully in the fight against terrorism, in accordance with our obligations under international law, in order to find, deny safe haven and bring to justice, on the basis of the principle of extradite or prosecute, any person who supports, facilitates, participates or attempts to participate in the financing, planning, preparation or perpetration of terrorist acts or provides safe havens.

3. To ensure the apprehension and prosecution or extradition of perpetrators of terrorist acts, in accordance with the relevant provisions of national and international law, in particular human rights law, refugee law and international humanitarian law. We will endeavour to conclude and implement to that effect mutual judicial assistance and extradition agreements, and to strengthen cooperation between law enforcement agencies.

4. To intensify cooperation, as appropriate, in exchanging timely and accurate information concerning the prevention and combating of terrorism.

5. To strengthen coordination and cooperation among States in combating crimes that might be connected with terrorism, including drug trafficking in all its aspects, illicit arms trade, in particular of small arms and light weapons, including man-portable air defence systems, money laundering and smuggling of nuclear, chemical, biological, radiological and other potentially deadly materials.

6. To consider becoming parties without delay to the United Nations Convention against Transnational Organized Crime and to the three protocols supplementing it, and implementing them.

7. To take appropriate measures, before granting asylum, for the purpose of ensuring that the asylum seeker has not engaged in terrorist activities and, after granting asylum, for the purpose of ensuring that the refugee status is not used in a manner contrary to the provisions set out in paragraph 1 of this section.

8. To encourage relevant regional and sub-regional organizations to create or strengthen counter-terrorism mechanisms or centres. Should they require cooperation and assistance to this end, we encourage the United Nations Counter-Terrorism Committee and its Executive Directorate and, where consistent with their existing mandates, the United Nations Office of Drugs and Crime and the International Criminal Police Organization, to facilitate its provision.

9. To acknowledge that the question of creating an international centre to fight terrorism could be considered, as part of the international efforts to enhance the fight against terrorism.

10. To encourage States to implement the comprehensive international standards embodied in the Financial Action Task Force's Forty Recommendations on Money Laundering and Nine Special Recommendations on Terrorist Financing, recognizing that States may require assistance in implementing them.

11. To invite the United Nations system to develop, together

with Member States, a single comprehensive database on biological incidents, ensuring that it is complementary to the International Criminal Police Organization's contemplated Biocrimes Database. We also encourage the Secretary-General to update the roster of experts and laboratories, as well as the technical guidelines and procedures, available to him for the timely and efficient investigation of alleged use. In addition, we note the importance of the proposal of the Secretary-General to bring together, within the framework of the United Nations, the major biotechnology stakeholders, including industry, scientific community, civil society and governments, into a common programme aimed at ensuring that biotechnology's advances are not used for terrorist or other criminal purposes but for the public good, with due respect to the basic international norms on intellectual property rights.

12. To work with the United Nations, with due regard to confidentiality, respecting human rights and in compliance with other obligations under international law, to explore ways and means to

- a. Coordinate efforts at the international and regional level to counter terrorism in all its forms and manifestations on the Internet,
- b. Use the Internet as a tool for countering the spread of terrorism, while recognizing that States may require assistance in this regard.

13. To step-up national efforts and bilateral, sub-regional, regional and international co-operation, as appropriate, to improve border and customs controls, in order to prevent and detect the movement of terrorists and to prevent and detect the illicit traffic in, inter alia, small arms and light weapons, conventional ammunition and explosives, nuclear, chemical, biological or radiological weapons and materials, while recognizing that States may require assistance to that effect.

14. To encourage the United Nations Counter Terrorism Committee and its Executive Directorate to continue to work with States, at their request, to facilitate the adoption of legislation and administrative measures to implement the terrorist travel-related obligations, and to identify best practices in this area, drawing whenever possible on those developed by technical international organizations such as the International Civil Aviation Organization, the World Customs Organization and the International Criminal Police Organization.

15. To encourage the Committee established pursuant to Security Council resolution 1267 (1999) to continue to work to strengthen the effectiveness of the travel ban under the United Nations sanctions regime against Al-Qaida and the Taliban and associated individuals and entities, as well as to ensure, as a matter of priority, that fair and transparent procedures exist for placing individuals and entities on its lists, for removing them and for granting humanitarian exceptions. In this regard, we encourage States to share information, including by widely distributing the International Criminal Police Organization-United Nations Special Notices concerning people subject to this sanctions regime.

16. To step up efforts and co-operation at every level, as appropriate, to improve the security on manufacturing and issuing identity and travel documents and to prevent and detect their alteration or fraudulent use, while recognizing that States may require assistance in doing so. In this regard, we invite the International Criminal Police Organization to enhance its database on stolen and lost travel documents, and we will endeavour to make full use of this tool as appropriate, in particular by sharing relevant information.

17. To invite the United Nations to improve co-ordination in planning a response to a terrorist attack using nuclear, chemical, biological or radiological weapons or materials, in particular by reviewing and improving the effectiveness of the existing inter-agency co-ordination mechanisms for assistance delivery, relief operations and victim support, so that all States can receive adequate assistance. In this regard, we invite the General Assembly and the Security Council to develop guidelines for the necessary co-operation and assistance in the event of a terrorist attack using weapons of mass destruction.

18. To step up all efforts to improve the security and protection

of particularly vulnerable targets such as infrastructure and public places, as well as the response to terrorist attacks and other disasters, in particular in the area of civil protection, while recognizing that States may require assistance to that effect.

III. Measures to build States' capacity to prevent and combat terrorism and to strengthen the role of the United Nations system in this regard

We recognize that capacity-building in all States is a core element of the global counter-terrorism effort, and resolve to undertake the following measures to develop State capacity to prevent and combat terrorism and enhance coordination and coherence within the United Nations system in promoting international cooperation in countering terrorism:

1. To encourage Member States to consider making voluntary contributions to United Nations counter-terrorism cooperation and technical assistance projects, and to explore additional sources of funding in this regard. We also encourage the United Nations to consider reaching out to the private sector for contributions to capacity-building programmes, in particular in the areas of port, maritime and civil aviation security.
2. To take advantage of the framework provided by relevant international, regional and sub-regional organizations to share best practices in counter-terrorism capacity-building, and to facilitate their contributions to the international community's efforts in this area.
3. To consider establishing appropriate mechanisms to rationalize States' reporting requirements in the field of counter-terrorism and eliminate duplication of reporting requests, taking into account and respecting the different mandates of the General Assembly, the Security Council and its subsidiary bodies that deal with counter terrorism.
4. To encourage measures, including regular informal meetings, to enhance, as appropriate, more frequent exchanges of information on cooperation and technical assistance among Member States, United Nations bodies dealing with counter terrorism, relevant specialized agencies, relevant international, regional and sub-regional organizations, and the donor community, to develop States' capacities to implement relevant United Nations resolutions.
5. To welcome the intention of the Secretary-General to institutionalize, within existing resources, the United Nations Counter-Terrorism Implementation Task Force within the Secretariat, in order to ensure overall co-ordination and coherence in the United Nations system's counter-terrorism efforts.
6. To encourage the United Nations Counter-Terrorism Committee and its Executive Directorate to continue to improve the coherence and efficiency of technical assistance delivery in the field of counter-terrorism, in particular by strengthening its dialogue with States and relevant international, regional and sub-regional organizations and working closely, including by sharing information, with all bilateral and multilateral technical assistance providers.
7. To encourage the United Nations Office on Drugs and Crime, including its Terrorism Prevention Branch, to enhance, in close consultation with the United Nations Counter-Terrorism Committee and its Executive Directorate, its provision of technical assistance to States, upon request, to facilitate the implementation of the international conventions and protocols related to the prevention and suppression of terrorism and relevant United Nations resolutions.
8. To encourage the International Monetary Fund, the World Bank, the United Nations Office on Drugs and Crime and the International Criminal Police Organization to enhance cooperation with States to help them to comply fully with international norms and obligations to combat money-laundering and financing of terrorism.
9. To encourage the International Atomic Energy Agency and the Organization for the Prohibition of Chemical Weapons to continue their efforts, within their respective mandates, in helping States to build capacity to prevent terrorists from accessing nuclear, chemical or radiological materials, to ensure

security at related facilities, and to respond effectively in the event of an attack using such materials.

10. To encourage the World Health Organization to step up its technical assistance to help States improve their public health systems to prevent and prepare for biological attacks by terrorists.
11. To continue to work within the United Nations system to support the reform and modernization of border management systems, facilities and institutions, at the national, regional and international level.
12. To encourage the International Maritime Organization, the World Customs Organization and the International Civil Aviation Organization to strengthen their co-operation, work with States to identify any national shortfalls in areas of transport security and provide assistance upon request to address them.
13. To encourage the United Nations to work with Member States and relevant international, regional and sub-regional organizations to identify and share best practices to prevent terrorist attacks on particularly vulnerable targets. We invite the International Criminal Police Organization to work with the Secretary-General so that he can submit proposals to this effect. We also recognize the importance of developing public-private partnerships in this area.

IV. Measures to ensure respect for human rights for all and the rule of law as the fundamental basis of the fight against terrorism

We resolve to undertake the following measures, reaffirming that the promotion and protection of human rights for all and the rule of law is essential to all components of the Strategy, recognizing that effective counter-terrorism measures and the protection of human rights are not conflicting goals, but complementary and mutually reinforcing, and stressing the need to promote and protect the rights of victims of terrorism:

1. To reaffirm that General Assembly resolution 60/158 of 16 December 2005 provides the fundamental framework for the "Protection of human rights and fundamental freedoms while countering terrorism".
2. To reaffirm that States must ensure that any measures taken to combat terrorism comply with their obligations under international law, in particular human rights law, refugee law and international humanitarian law.
3. To consider becoming parties without delay to the core international instruments on human rights law, refugee law and international humanitarian law, and implementing them, as well as to consider accepting the competence of international and relevant regional human rights monitoring bodies.
4. To make every effort to develop and maintain an effective and rule of law-based national criminal justice system that can ensure, in accordance with our obligations under international law, that any person who participates in the financing, planning, preparation or perpetration of terrorist acts or in support of terrorist acts is brought to justice, on the basis of the principle to extradite or prosecute, with due respect for human rights and fundamental freedoms, and that such terrorist acts are established as serious criminal offences in domestic laws and regulations. We recognize that States may require assistance in developing and maintaining such effective and rule of law-based criminal justice system, and we encourage them to resort to the technical assistance delivered, inter alia, by the United Nations Office on Drugs and Crime.
5. To reaffirm the United Nations system's important role in strengthening the international legal architecture by promoting the rule of law, respect for human rights, and effective criminal justice systems, which constitute the fundamental basis of our common fight against terrorism.
6. To support the Human Rights Council, and to contribute, as it takes shape, to its work on the question of the promotion and protection of human rights for all in the fight against terrorism.
7. To support the strengthening of the operational capacity of the Office of the United Nations High Commissioner for Human Rights, with a particular emphasis on increasing field operations

and presences. The Office should continue to play a lead role in examining the question of protecting human rights while countering terrorism, by making general recommendations on States' human rights obligations and providing them with assistance and advice, in particular in the area of raising awareness of international human rights law among national law-enforcement agencies, at States' request.

To these support the role of the Special Rapporteur on the promotion and protection of human rights and fundamental freedoms while countering terrorism. The Special Rapporteur should continue to support States' efforts and offer concrete advice by corresponding with Governments, making country visits, liaising with the United Nations and regional organizations, and reporting on these issues.

C – Informal Initiatives

The G8 Global Partnership Against the Spread of Weapons and Material of Mass Destruction

[Kananaskis, 27 June 2002]

The attacks of September 11 demonstrated that terrorists are prepared to use any means to cause terror and inflict appalling casualties on innocent people. We commit ourselves to prevent terrorists, or those that harbour them, from acquiring or developing nuclear, chemical, radiological and biological weapons; missiles; and related materials, equipment and technology. We call on all countries to join us in adopting the set of non-proliferation principles we have announced today.

In a major initiative to implement those principles, we have also decided today to launch a new G8 Global Partnership against the Spread of Weapons and Materials of Mass Destruction. Under this initiative, we will support specific cooperation projects, initially in Russia, to address non-proliferation, disarmament, counter-terrorism and nuclear safety issues. Among our priority concerns are the destruction of chemical weapons, the dismantlement of decommissioned nuclear submarines, the disposition of fissile materials and the employment of former weapons scientists. We will commit to raise up to \$20 billion to support such projects over the next ten years. A range of financing options, including the option of bilateral debt for program exchanges, will be available to countries that contribute to this Global Partnership. We have adopted a set of guidelines that will form the basis for the negotiation of specific agreements for new projects, that will apply with immediate effect, to ensure effective and efficient project development, coordination and implementation. We will review over the next year the applicability of the guidelines to existing projects.

Recognizing that this Global Partnership will enhance international security and safety, we invite other countries that are prepared to adopt its common principles and guidelines to enter into discussions with us on participating in and contributing to this initiative. We will review progress on this Global Partnership at our next Summit in 2003.

The G8 Global Partnership: Principles to prevent terrorists, or those that harbour them, from gaining access to weapons or materials of mass destruction

The G8 calls on all countries to join them in commitment to the following six principles to prevent terrorists or those that harbour them from acquiring or developing nuclear, chemical, radiological and biological weapons; missiles; and related materials, equipment and technology.

1. Promote the adoption, universalization, full implementation and, where necessary, strengthening of multilateral treaties and other international instruments whose aim is to prevent the proliferation or illicit acquisition of such items; strengthen the institutions designed to implement these instruments.
2. Develop and maintain appropriate effective measures to account for and secure such items in production, use, storage and domestic and international transport; provide assistance to states lacking sufficient resources to account for and secure these items.

3. Develop and maintain appropriate effective physical protection measures applied to facilities which house such items, including defence in depth; provide assistance to states lacking sufficient resources to protect their facilities.
4. Develop and maintain effective border controls, law enforcement efforts and international cooperation to detect, deter and interdict in cases of illicit trafficking in such items, for example through installation of detection systems, training of customs and law enforcement personnel and cooperation in tracking these items; provide assistance to states lacking sufficient expertise or resources to strengthen their capacity to detect, deter and interdict in cases of illicit trafficking in these items.
5. Develop, review and maintain effective national export and transshipment controls over items on multilateral export control lists, as well as items that are not identified on such lists but which may nevertheless contribute to the development, production or use of nuclear, chemical and biological weapons and missiles, with particular consideration of end-user, catch-all and brokering aspects; provide assistance to states lacking the legal and regulatory infrastructure, implementation experience and/or resources to develop their export and transshipment control systems in this regard.
6. Adopt and strengthen efforts to manage and dispose of stocks of fissile materials designated as no longer required for defence purposes, eliminate all chemical weapons, and minimize holdings of dangerous biological pathogens and toxins, based on the recognition that the threat of terrorist acquisition is reduced as the overall quantity of such items is reduced.

The G8 Global Partnership: Guidelines for New or Expanded Cooperation Projects

The G8 will work in partnership, bilaterally and multilaterally, to develop, coordinate, implement and finance, according to their respective means, new or expanded cooperation projects to address (i) non-proliferation, (ii) disarmament, (iii) counter-terrorism and (iv) nuclear safety (including environmental) issues, with a view to enhancing strategic stability, consonant with our international security objectives and in support of the multilateral non-proliferation regimes. Each country has primary responsibility for implementing its non-proliferation, disarmament, counter-terrorism and nuclear safety obligations and requirements and commits its full cooperation within the Partnership.

Cooperation projects under this initiative will be decided and implemented, taking into account international obligations and domestic laws of participating partners, within appropriate bilateral and multilateral legal frameworks that should, as necessary, include the following elements:

- i. Mutually agreed effective monitoring, auditing and transparency measures and procedures will be required in order to ensure that cooperative activities meet agreed objectives (including

irreversibility as necessary), to confirm work performance, to account for the funds expended and to provide for adequate access for donor representatives to work sites;

- ii. The projects will be implemented in an environmentally sound manner and will maintain the highest appropriate level of safety;
- iii. Clearly defined milestones will be developed for each project, including the option of suspending or terminating a project if the milestones are not met;
- iv. The material, equipment, technology, services and expertise provided will be solely for peaceful purposes and, unless otherwise agreed, will be used only for the purposes of implementing the projects and will not be transferred. Adequate measures of physical protection will also be applied to prevent theft or sabotage;
- v. All governments will take necessary steps to ensure that the support provided will be considered free technical assistance and will be exempt from taxes, duties, levies and other charges;
- vi. Procurement of goods and services will be conducted in accordance with open international practices to the extent possible, consistent with national security requirements;
- vii. All governments will take necessary steps to ensure that adequate liability protections from claims related to the cooperation will be provided for donor countries and their personnel and contractors;
- viii. Appropriate privileges and immunities will be provided for government donor representatives working on cooperation projects; and
- ix. Measures will be put in place to ensure effective protection of sensitive information and intellectual property.

Given the breadth and scope of the activities to be undertaken, the G8 will establish an appropriate mechanism for the annual review of progress under this initiative which may include consultations regarding priorities, identification of project gaps and potential overlap, and assessment of consistency of the cooperation projects with international security obligations and objectives. Specific bilateral and multilateral project implementation will be coordinated subject to arrangements appropriate to that project, including existing mechanisms.

For the purposes of these guidelines, the phrase "new or expanded cooperation projects" is defined as cooperation projects that will be initiated or enhanced on the basis of this Global Partnership. All funds disbursed or released after its announcement would be included in the total of committed resources. A range of financing options, including the option of bilateral debt for program exchanges, will be available to countries that contribute to this Global Partnership.

The Global Partnership's initial geographic focus will be on projects in Russia, which maintains primary responsibility for implementing its obligations and requirements within the Partnership.

In addition, the G8 would be willing to enter into negotiations with any other recipient countries, including those of the Former Soviet Union, prepared to adopt the guidelines, for inclusion in the Partnership.

Recognizing that the Global Partnership is designed to enhance international security and safety, the G8 invites others to contribute to and join in this initiative.

With respect to nuclear safety and security, the partners agreed to establish a new G8 Nuclear Safety and Security Group by the time of our next Summit.

**Declaration on Non-proliferation and
Disarmament
(G8 Global Partnership Extension)
[G8 Deauville Summit, 26-27 May 2011]**

1. Preventing the **proliferation** of weapons of mass destruction (WMDs) and their means of delivery is one of our top priorities, because as we have already recognized, the proliferation of WMD represents a major threat to international peace and security. We are determined to strengthen the global non-proliferation architecture, by supporting all multilateral treaties and arrangements which help to prevent and combat proliferation, and by promoting their implementation and universalization. We call upon all States still not Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (**NPT**), the Chemical Weapons Convention (CWC) and the Biological and Toxin Weapons Convention (BTWC) to accede without delay. We also remain determined to increase the effectiveness of our national systems to combat proliferation.

2. We reaffirm our unconditional support for the **NPT**, which remains the cornerstone of the nuclear non-proliferation regime and the essential foundation for the pursuit of disarmament and the peaceful uses of nuclear energy.

3. We welcome the adoption by the **NPT Review Conference** in May 2010 of a balanced Final Document on the three pillars of the Treaty. We are determined to meet our commitments and call upon all States Parties to collectively implement the provisions of this document. In this regard, we support the meeting which will take place in Paris on 30 June 2011 of P5 States on the follow-up of the NPT Review Conference. The States concerned also reaffirm their commitment, to consult and cooperate to bring about the entry into force of the relevant legally binding protocols of nuclear-weapon-free zone treaties. While respecting article X of the NPT, we at the same time recognise that modalities and measures to address a withdrawal are needed. In that regard we stress that the UNSC must immediately address any State's notification of withdrawal from the NPT and that any State Party remains responsible under international law for violations of the NPT committed prior to its withdrawal. This important issue should remain on the agenda of the next NPT review cycle.

4. We express our readiness to make any contribution necessary to the implementation of the decisions of the 2010 NPT Review Conference regarding the establishment in the **Middle East** of a zone free of nuclear weapons as well as other weapons of mass destruction and their means of delivery. We call upon all States concerned to make all efforts necessary to the preparation of the Conference to be held in 2012. To that end we welcome the EU efforts in organising a seminar.

5. Having in mind the nuclear accident in **Japan**, for which we express our solidarity with the Japanese government and people we highlight the necessity to pay particular

attention to nuclear safety. In this regard we look forward to the 7-8 June Paris meeting on nuclear safety and to the June 20-24th ministerial conference organised by the IAEA in order to draw lessons and improve the international nuclear safety measures and regime.

6. We reiterate our strong concern about the severe proliferation challenges and our commitment to working to resolve them through diplomatic means. The IAEA, and in particular its safeguards system, remains an essential tool for the effective implementation of the nuclear non-proliferation regime. The IAEA must have the necessary resources and be capable of fully exercising its verification mission, and, in accordance with its statutory mandate, to report cases of non-compliance to the United Nations Security Council (UNSC).

7. **Iran's** persistent failure to comply with its international obligations under numerous UNSC and IAEA Board of Governors resolutions remains a cause of utmost concern. We note that, following intensive diplomatic efforts by China, France, Germany, Russia, the United Kingdom, the United States and the European Union High Representative as well as the adoption of measures in UNSCR 1929 (June 2010), Iran finally accepted to meet twice in Geneva (December 2010) and Istanbul (January 2011). We regret that Iran was not willing to discuss the practical and detailed ideas that were put forward, and still fails to respond to the concerns of the international community on the purpose of its nuclear program. We recall that, according to UNSCR 1929, Iran shall not undertake any activity related to ballistic missiles capable of delivering nuclear weapons, including launches using ballistic missile technology. We urge Iran to enter without preconditions into a constructive dialogue on how to restore international confidence in the exclusively peaceful nature of its nuclear programme. We recall that we recognize Iran's right to peaceful nuclear energy under the NPT, but that this right also comes with obligations that all States parties to the NPT, including Iran, have to respect. Iran has yet to demonstrate through compliance with its international obligations under the relevant UNSC and the IAEA Board of governor's resolutions that its programme is exclusively for peaceful purposes. We call upon Iran to cooperate fully with the IAEA in this respect by implementing all transparency measures, as requested by the Agency. We urge Iran to change course and to engage into a constructive dialogue with the Six to discuss its nuclear programme, with the ultimate goal of establishing a comprehensive relationship, involving cooperation in all fields (economic, nuclear energy for peaceful purposes, political and security) and benefiting Iran and the international community. Depending on Iran's actions, we will determine the need for additional measures in line with the dual-track approach.

8. We condemn the **Democratic People's Republic of Korea's** violation of United Nations Security Council resolutions 1718 and 1874, by its development of nuclear and ballistic missile programmes, including its uranium enrichment programme. We urge the DPRK to fully abide by its international obligations and commitments including those under the September 2005 Joint Statement of the Six-Party Talks and to abandon all its nuclear weapons and existing nuclear and ballistic missile programmes in a complete, verifiable and irreversible manner, as stated in UNSC resolutions 1718 and 1874, inter alia by providing the IAEA unlimited access to all its nuclear facilities, sites and other locations. We demand the DPRK to return to full compliance with the NPT and IAEA safeguards obligations. We also call upon the DPRK to take all necessary measures to prevent any proliferation of materials, technologies or know-how, related to WMD and their means of delivery and conventional arms. We urge the DPRK to take concrete actions which would create an environment conducive to the resumption of dialogue and to take irreversible steps toward denuclearization. We urge

the DPRK to refrain from any acts or provocations, such as the November 2010 artillery shelling of Yeongpyang Island, which negatively impact the stability of the region.

9. We note with deep concern the lack of cooperation by Syria reflected in the most recent IAEA report. We urge Syria to fulfil its obligations and fully cooperate with the Agency and respond to the IAEA Director-General's requests for access and information in order to clarify all outstanding issues. We look forward to the IAEA Board of Governors addressing the seriousness of the issue.

10. We express our concern at the **continued proliferation of WMD and their means of delivery** which constitutes a threat to international peace and security as underlined in UNSCR 1540, 1887 and 1977. While considering cooperation in the field of ballistic missile technology, know how and systems, States must pay particular attention to proliferation risks in this regard. We are concerned about the ongoing missile programmes in the Middle East, North-east Asia and South Asia including Iran and DPRK. We recognise the need to step up our efforts to increase the effectiveness of multilateral arrangements, particularly the Hague Code of Conduct Against Ballistic Missile Proliferation (HCOG) and the Missile Technology Control Regime (MTCR). In this regard, as mentioned in the last MTCR plenary press release (Buenos Aires, 15 April 2011), MTCR Partners discussed proliferation of WMD as well as their means of delivery that constitute a threat to international peace and security and reaffirmed the importance of addressing these specific challenges and the role the MTCR serves in this regard. We support the efforts made with regard to the universalization of the HCOG and express our willingness to make the Code more efficient. We are committed to making the international community further aware of this threat and to promoting transparency on ballistic missiles.

11. On 14-15 March 2010, the G8 Foreign Affairs ministers adopted a Statement on the Seventh Review Conference for the **Biological and Toxin Weapons Convention (BTWC)**. We welcome this declaration and look forward to a successful 7th BTWC Review Conference dedicated to the effective review of the operation of the Convention.

12. We reaffirm our unconditional support for the **CWC** and the functions of the **OPCW**. Destruction of chemical weapons remains a key objective of the Convention. We encourage all possessor States to take every necessary measure to accelerate their destruction processes in a transparent fashion, and within the framework of the existing verification regime. We reiterate the need for an enhanced industry verification regime. Selection of facilities should be directed towards those sites of the greatest relevance to the object and purpose of the Convention.

13. We are determined to promote a **more concrete approach with regard to the fight against proliferation** through the effective implementation of multilateral instruments and strong national measures. To fight proliferation financing, we support the process launched at the Financial Action Task Force (FATF) that will strengthen the financial vigilance of G8 countries in a coordinated manner. To support UN proliferation sanctions, we will bolster the existing criminal provisions in national legislation and encourage States to identify as a specific offence the proliferation of WMDs, their means of delivery and related materials. Such provisions will also target financing and financial services. To better counteract proliferation, we are committed to strengthening cooperation in this area among the G8 and with others, where appropriate, notably by increasing State endorsements of the Proliferation Security Initiative (PSI) and improving its effectiveness. We will continue to strengthen our national export control policies and we will

exercise vigilance with regard to access to WMD and their means of delivery proliferation-related knowledge and know-how. Such actions will be taken to further implement Resolutions 1540 and 1887, as well as other UNSC resolutions.

14. We fully support the key role played by the **United Nations Security Council** in addressing proliferation issues. We welcome the adoption of Resolution 1977 reinforcing **Resolution 1540** which aims to prevent non-State actors from acquiring WMDs, their means of delivery and related materials and renewing the mandate of the 1540 Committee. We invite all States to contribute to the implementation of UNSCR 1540 and we reiterate our support to the 1540 Committee in the discharge of its mandate.

15. We recall our commitment to seeking a **safer world** for all, and to creating the conditions for a world without nuclear weapons, in accordance with the goals of the NPT, in a way that promotes international stability, based on the principle of undiminished security for all, and underlining the vital importance of non-proliferation for achieving this goal.

16. We welcome the entry into force of the New **START** Treaty between the Russian Federation and the United States of America as a significant progress on the disarmament agenda. We also recall and welcome the disarmament efforts already made by France and the UK. Efforts by some nuclear weapons States in nuclear arms reductions, disarmament, confidence-building and transparency, including increased transparency measures of some nuclear-weapon States, represent major steps in line with the action plan adopted by the NPT Review Conference in May 2010. We urge all States to extend these efforts by bringing into force the Comprehensive Nuclear Test-Ban Treaty (CTBT) and negotiating a Fissile Material Cut-off Treaty.

17. We will continue our efforts for the permanent and legally binding cessation of all nuclear weapons-test explosions or any other nuclear explosion through the swift entry into force of the Comprehensive Nuclear-Test-Ban Treaty (**CTBT**) and its universalization. We call upon all States to join our efforts in this regard, to uphold the moratorium on nuclear weapons test explosion or any other nuclear explosion and to refrain from acts that would defeat the object and purpose of the Treaty pending its entry into force. We reiterate our support for the work achieved by the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), in building up all elements of the verification regime, particularly its International Monitoring System (IMS) and on-site inspections.

18. We note our profound regret and growing frustration in the international community over the persistent failure of the Conference on Disarmament to initiate negotiations on **fissile material cut-off treaty (FMCT)** banning the production of fissile material for nuclear weapons or other nuclear explosive devices, including verification provisions. We call on all States participating in the Conference on Disarmament to immediately start, building on the CD/1864 programme of work, substantive international negotiations on a Fissile Material Cut-Off Treaty. We express our support for the moratorium on the production of such materials announced by the G8 nuclear-weapons States, and we call on the other States concerned to follow suit.

19. We actively support the ongoing efforts within the UN regarding the elaboration of a global instrument on **conventional arms**.

20. We support the decisive role of the **IAEA** in strengthening the international non proliferation regime and express our willingness to promote as a universally accepted international verification standard the IAEA Comprehensive Safeguards Agreement together with the Additional Protocol. We call on all States which have not yet done so to sign and ratify the Additional Protocol and apply its provisions as soon as possible.

21. Reaffirming the inalienable right of all States Parties to the NPT to use **nuclear energy for peaceful purposes**, in compliance with their international obligations, we reiterate our willingness to cooperate with States which meet their non-proliferation obligations and wish to develop a civil nuclear programme, in order to help them fulfil the essential requirements of a development of nuclear energy. These requirements include safety, security, non-proliferation and respect for the environment. We are committed to continuing our efforts towards the universal acceptance of the IAEA Comprehensive safeguards agreement, together with the Additional Protocol, as the IAEA verification standard. We call on all States which are developing nuclear energy for peaceful purposes to develop or strengthen national civil nuclear liability regimes in line with the relevant international civil nuclear liability instruments. Development and application of innovative technology in relevant frameworks has a growing role to play in supplying global demand for energy and also in building up robust and transparent atomic energy infrastructure resistant to nuclear accidents. We underscore the responsibility of governments for timely and sufficient measures on accident prevention and management to minimize the consequences of accidents, should they occur. Efficiency and substance of notifications in case of nuclear accidents should be further improved as well.

22. We acknowledge the useful contribution the multilateral approaches to the nuclear fuel cycle provide in the field of nuclear energy and encourage the International Atomic Energy Agency's efforts to continue to address this issue. In this regard, we support the IAEA's decision to establish a reserve of low enriched uranium for the IAEA member states as well as its decision to establish a fuel bank and adopt a Model Agreement for Nuclear Fuel Assurance initiative, while respecting market rules.

23. We would like to stress the importance of **nuclear security** as part of the development of nuclear energy for peaceful purposes. We welcome the results of the Washington Nuclear Security Summit in April 2010 and encourage States to implement the objectives set out in the Final Communiqué and the Work Plan, as well as the national commitments announced at the Washington Summit and those made ahead of the Seoul Summit in April 2012. We call on all States to implement the IAEA's most current recommendations on physical protection of nuclear material and nuclear facilities (INFCIRC/225/Rev.5).

24. We welcome the work of the **Nuclear Suppliers Group (NSG)** to control the transfer of goods and technologies linked to the most sensitive aspects of the nuclear fuel cycle (enrichment and reprocessing). We encourage the NSG to quickly reach consensus in order to implement a strengthened mechanism supervising these transfers. While awaiting the completion of this work, we agree to continue to apply on a national basis the set of relevant export criteria indicated in the declaration adopted at the L'Aquila Summit and reendorsed in Muskoka in 2010.

25. We welcome the achievements of the **G8 Global Partnership**, launched in Kananaskis in 2002, and remain committed to completing priority projects in Russia. Our assessment of the Partnership recognises the significant

progress the 23 Partners have achieved on the full range of WMD non proliferation activities worldwide. The assessment also provides directions for the future. As such, we agree to extend the Partnership beyond 2012, based on the areas of focus enunciated at Muskoka (nuclear and radiological security, bio-security, scientist engagement, and facilitation of the implementation of UNSCR 1540). We will work with all Partners in discussing and coordinating projects in the above-mentioned areas, and we will expand membership of the Partnership. Partners will decide on funding of such projects on a national, joint, or multilateral basis.

**Proliferation Security Initiative,
Chairman's Statement**
[Warsaw, 23 June 2006]

Members of the international community from around the globe gathered on 23rd June, 2006 in Warsaw at the invitation of the Government of Poland to reaffirm publicly their strong commitment to the Proliferation Security Initiative (Cracow PSI), the PSI Statement of Interdiction Principles, and the goal of proactively combating WMD-related trafficking.

This gathering of nations is a resounding testament to the combined will and cooperative spirit of the international community of nations to work together to prevent the proliferation of weapons of mass destruction, their delivery systems, and related materials to states and non-state actors of proliferation concern. This gathering further demonstrates the consensus of the international community that the nexus of the proliferation of weapons of mass destruction and terrorism constitutes one of the gravest dangers to the global community and demands constant vigilance. This gathering supports enhanced cooperation against proliferation networks and implementation of innovative measures, which will not only stop the transfer of these dangerous items but also act as a deterrent against those who would seek to facilitate such proliferation activities.

The Proliferation Security Initiative was announced on May 31st, 2003 in Cracow. Today, a few short weeks after only the third anniversary of the initiative, participants noted that much has been accomplished, and that PSI is globally recognized as making an important contribution to international efforts to address the security threats posed by WMD and missile proliferation.

First, the Proliferation Security Initiative and the Statement on Interdiction Principles have provided an effective platform, consistent with national legal authorities and relevant international law and frameworks, for impeding and stopping the trafficking in weapons of mass destruction and their means of delivery. The PSI Participating States note in this context that UN Security Council resolution 1540 (2004) calls upon all states, in accordance with their national legal authorities and legislation and consistent with international law, to take cooperative action to prevent illicit trafficking in nuclear, chemical or biological weapons, their means of delivery, and related materials.[KP1]

Second, the network of PSI participating states is constantly expanding across the globe. In just three years, the number of states that have expressed support for the PSI Principles and have committed to actively supporting interdiction efforts whenever necessary has increased to more than 75. PSI participating states now hail from every region of the world and, most importantly, from the regions of greatest concern for WMD-related trafficking. This is a vital accomplishment, because the national legal authorities and operational capabilities of PSI participating states serve as the basis for successful interdictions.

Third, PSI participating states have greatly improved their national capacities to interdict shipments of proliferation concern. Over the last three years, countries have undertaken robust efforts to:

- Proactively identify and use existing laws to conduct interdictions, and strengthen laws where necessary,
- Improve interdiction capabilities through multinational

- training efforts such as live exercises and gaming exercises,
- Improve their national organization for decision-making and operational execution in support of PSI interdictions,
- Establish relationships with key industries to facilitate their cooperation on PSI interdictions, and
- Continue to reach out to those states that have yet to endorse the PSI Statement of Interdiction Principles and to ensure that all PSI participating states can achieve the full benefits of involvement in the Initiative.

Finally, PSI is achieving results. Like-minded nations, working cooperatively, have utilized their national legal authorities and international legal frameworks to successfully stop shipments of WMD- and missile-related materials that, had they reached their destination and end-use, would have aided states and possibly non-state actors of proliferation concern in the development of weapons of mass destruction.

During this meeting, PSI participating states focused on deepening their on-going efforts in all these regards. They stressed the importance of maintaining the operational focus and nature of the PSI Operational Experts process and further developing its regional dimension. They also discussed the efforts of several PSI participating states to disrupt the financial mechanisms that support proliferators. They concluded that each participant should consider how their own national laws and authorities might be utilized or strengthened to identify, track or freeze the assets and transactions of WMD proliferators and their supporters. In addition, the PSI participating states undertook to explore how PSI states can work cooperatively to prevent and disrupt proliferation finance, in furtherance of their obligations under UNSCR 1540 and 1673.

PSI partners will continue to work together toward the objective of stopping the trafficking in WMD, their delivery systems, and related materials. They will also continue to work with those nations that have yet to indicate their support for the PSI, to further broaden the reach of willing partners. PSI Participants recognized that their actions under the PSI in preventing the spread of WMD-related material are having a positive impact on the world in which we live.

Chairman's Summary PSI Tenth Anniversary
[May 2013]

The Tenth Anniversary of the Proliferation Security Initiative (PSI) was marked by a High Level Political Meeting (HLPM), which took place in Warsaw on 28 May 2013. Senior representatives from 72 PSI-endorsing states commemorated the actions undertaken since the launch of the Initiative at Wawel Royal Castle in Krakow, on 31 May 2003. Even more importantly, the meeting laid out a path for our common efforts to strengthen the PSI in the years ahead.

In today's world the proliferation of weapons of mass destruction, their delivery systems, and related materials, remains a threat to international peace and security. In this regard, the participants of the HLPM recognised the fact that the PSI is and should remain a core element of the international non-proliferation regime.

The meeting opened with messages from President of the Republic of Poland, Bronislaw Komorowski, and President of the United States, Barack Obama. The President of Poland underlined that "all members of the international community should step up their efforts and coordinate their actions to effectively pursue PSI goals". The President of the United States called upon the endorsers of the initiative to "commit to concrete, tangible actions to strengthen the PSI", and to recognize that "the PSI is a testament to what is possible when nations come together to confront a shared challenge and move toward a safer, more peaceful world".

The four plenary sessions of the meeting were chaired by the Republic of Korea, Germany, Australia and the United

States. Associated with each of these sessions is a Joint Statement outlining the commitment of countries affirming that statement to take specific actions in each issue area. The four Joint Statements, taken together, represent the affirming countries' common view of future work for the Initiative.

- The first Joint Statement, on "Ensuring a Robust Initiative", underlines a need to conduct more regular and robust PSI events, including exercise rotations.
- The second Joint Statement, on "Enhancing Critical Interdiction Capabilities and Practices", encourages working together to share capacity building tools and resources among all PSI endorsing states.
- The third, statement on "Strengthening Authorities for Action", invites countries to continue working, both individually and cooperatively, to strengthen national and international authorities, including through adoption of new frameworks.
- The fourth and final Joint Statement, on "Expanding Strategic Communications", encourages outreach by PSI endorsing States to prospective partner states and the communication of PSI's principles and goals to the public and private sector.

At the close of the meeting, over 70 states had affirmed the Joint Statements. The Chairs of each of the session emphasized that the Joint Statements will remain open to affirmation by other PSI-endorsing states.

Many states emphasized that it is crucial to continue supporting a robust schedule of PSI events, including capacity-building activities, in order to ensure that the PSI remains active, strong and successful. Participating states committed to take concrete actions in support of their PSI commitments. These declarations of action ranged from conducting PSI exercise rotations to examining new national laws, including export controls and international frameworks, such as the 2005 Protocol to the Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation and the 2010 Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation.

Many countries also highlighted the voluntary and flexible nature of the initiative and noted that each endorser should continue to contribute to the initiative and undertake interdiction actions in accordance with their resources and authorities. They also welcomed the successful results of interdiction actions carried out in the framework of the PSI that have allowed states to work together and interdict multiple cargoes of WMD-related items.

The countries participating in the discussions also recognized that each new State that decides to endorse the initiative brings additional political commitment, resources and expertise, and that every State concerned about the proliferation of WMD should be encouraged to endorse the Statement of Interdiction Principles.

Statement of Principles for the Global initiative to Combat Nuclear Terrorism

Bureau of International Security and Nonproliferation,
Washington, DC
[20 November 2006]

Participants in the Global Initiative to Combat Nuclear Terrorism are committed to the following Statement of Principles to develop partnership capacity to combat nuclear terrorism on a determined and systematic basis, consistent with national legal authorities and obligations they have under relevant international legal frameworks, notably the Convention for the Suppression of Acts of Nuclear Terrorism, the Convention on the Physical Protection of Nuclear Material and its 2005

Amendment, United Nations Security Council Resolutions 1373 and 1540. They call on all states concerned with this threat to international peace and security, to make a commitment to implement on a voluntary basis the following principles:

- Develop, if necessary, and improve accounting, control and physical protection systems for nuclear and other radioactive materials and substances;
- Enhance security of civilian nuclear facilities;
- Improve the ability to detect nuclear and other radioactive materials and substances in order to prevent illicit trafficking in such materials and substances, to include cooperation in the research and development of national detection capabilities that would be interoperable;
- Improve capabilities of participants to search for, confiscate, and establish safe control over unlawfully held nuclear or other radioactive materials and substances or devices using them.
- Prevent the provision of safe haven to terrorists and financial or economic resources to terrorists seeking to acquire or use nuclear and other radioactive materials and substances;
- Ensure adequate respective national legal and regulatory frameworks sufficient to provide for the implementation of appropriate criminal and, if applicable, civil liability for terrorists and those who facilitate acts of nuclear terrorism;
- Improve capabilities of participants for response, mitigation, and investigation, in cases of terrorist attacks involving the use of nuclear and other radioactive materials and substances, including the development of technical means to identify nuclear and other radioactive materials and substances that are, or may be, involved in the incident; and
- Promote information sharing pertaining to the suppression of acts of nuclear terrorism and their facilitation, taking appropriate measures consistent with their national law and international obligations to protect the confidentiality of any information which they exchange in confidence.

Global Initiative participants recognize the role of the International Atomic Energy Agency (IAEA) in the fields of nuclear safety and security and the IAEA has been invited to serve as an observer to the Initiative. All participants commend the IAEA for its action in the field of nuclear security. Participants intend for the IAEA to contribute to the Initiative through its ongoing activities and technical expertise.

The initial partner nations intend to establish a terms of reference for implementation and assessment to support effective fulfillment of the initiative, including by facilitating the provision of assistance to participants that may require it, and facilitating suitable exercises.

They express the desire to broaden participation in the Global Initiative to other countries who share the common goals of the Initiative, are actively committed to combating nuclear terrorism, and endorse the Statement of Principles.

Joint Statement of the President of the Russian Federation and the President of the United States of America for the 4th Meeting of the Global Initiative to Combat Nuclear Terrorism

[17 June 2008]

We are pleased to be working closely together with our Global Initiative Partners to combat nuclear terrorism. That so many nations have joined the Global Initiative to Combat Nuclear Terrorism demonstrates a true commitment to defeat this threat to our peace and security.

The Russian Federation and the United States launched the Global Initiative on July 15, 2006 and we can now call more than 70 nations Global Initiative partners. We will continue to stand upon the principles at the heart of this Initiative, attract others to our ranks and realize our goal of making this a truly global effort. Gathering as partners in Madrid is an important reminder to one another of the commitments we have to each of our citizens to see clearly the concrete steps we can take together to prevent nuclear terrorism and ensure our peace and

security.

**2015 Global Initiative to Combat Nuclear
Terrorism Plenary Meeting Joint Co-Chair
Statement**
[17 June 2015]

Partner nations and official observers of the Global Initiative to Combat Nuclear Terrorism (GICNT) gathered in Helsinki, Finland, June 16-17, 2015, for the GICNT's 9th senior-level Plenary Meeting. Since it was launched in 2006, the GICNT has grown into a partnership of 86 nations and 5 official observers committed to strengthening global capacity to prevent, detect, and respond to nuclear terrorism. The Plenary Meeting underscored the GICNT's unique ability to bring together policy, technical, and operational experts to enhance partners' capabilities to address difficult and emerging nuclear security challenges.

The meeting opened with host welcome remarks by Ambassador Klaus Korhonen, Ministry for Foreign Affairs of Finland. Foreign Minister Timo Soini gave the keynote address on behalf of Finland.

The Russian Federation and United States were selected as Co-Chairs of the GICNT for the term 2015-2019. The Co-Chairs thanked all GICNT partner nations and official observers for their continued commitment to advancing the GICNT's mission and welcomed Iraq as a new partner and the United Nations Interregional Crime and Justice Research Institute (UNICRI) as a new official observer. The Co-Chairs also recognized the Republic of Korea (ROK) for its leadership as Implementation and Assessment Group (IAG) Coordinator. In this capacity, the ROK played a critical role in implementing the GICNT strategy announced at the 2013 Plenary Meeting in Mexico City, which called for an increase in practical, topically- and regionally-focused activities, such as workshops and exercises.

On behalf of all participants, the Co-Chairs thanked the Government of Finland for hosting the 2015 Plenary Meeting. The Co-Chairs also recognized Finland's extensive leadership and commitment to nuclear security, exemplified by the hosting of the GICNT nuclear detection exercise, "Northern Lights," earlier this year.

Plenary Reviews 2013-2015 Accomplishments

The Plenary reviewed key outcomes from the following events held since the 2013 Plenary Meeting:

- The United Kingdom hosted the nuclear forensics workshop and exercise, "Blue Beagle," January 7-9, 2014, in London
- Malaysia hosted the cross-disciplinary training workshop and tabletop exercise, "Tiger Reef," February 4-7, 2014, in Kuala Lumpur
- Mexico hosted a nuclear detection workshop and field training exercise on alarm adjudication and communications protocols February 25-28, 2014, at the Port of Manzanillo
- Argentina and Chile co-hosted the Radiological Emergency Management Exercise: "Paihuen," August 5-7, 2015, in Buenos Aires
- Hungary hosted the nuclear forensics fundamentals workshop and tabletop exercise, "Csodaszarvas: Mystic Deer," October 14-16, 2014, in Budapest
- Finland hosted the nuclear detection workshop and tabletop exercise, "Northern Lights," January 26-28, 2015, in Helsinki
- The Netherlands hosted the International Conference and Mock Trial on Nuclear Forensics, "Glowing Tulip," March 3-5, 2015, in The Hague
- The Philippines hosted the Public Messaging for Emergency Management Workshop, "Sugong Bagani: Envoy Warrior," April 15-17, 2015, in Manila

- The European Union's Joint Research Centre, Institute for Transuranium Elements, hosted the joint detection and forensics exercise, "Radiant City," May 5-7, 2015, in Karlsruhe, Germany

To further develop Working Group products and plan future activities, Greece and the United States hosted Nuclear Detection Working Group (NDWG) workshops, France hosted a Response and Mitigation Working Group (RMWG) workshop, and Lithuania hosted a Nuclear Forensics Working Group (NFWG) workshop.

Implementation and Assessment Group (IAG) Meetings

The IAG Coordinator reported progress made since the previous GICNT Plenary meeting in Mexico City, Mexico, in 2013. Major IAG meetings held over the past two years included:

- An annual IAG Meeting in Seoul, Republic of Korea, July 1-4, 2014, where the three Working Groups held simultaneous sessions focusing on document review and future event planning. Partners discussed the GICNT's Statement of Principles with the objective of developing proposed topics and themes for future activities that would build upon past work and address new or continuing nuclear security challenges. The feedback obtained from these strategic planning sessions played an important role in shaping the IAG Coordinator's proposal for future areas of work.
- A Mid-Year IAG Meeting in Rabat, Morocco, February 17-19, 2015, where each Working Group held simultaneous sessions to finalize guidance documents, plan future activities, and discuss working group plans for 2015-2017. Partners also participated in the "Atlas Lion" tabletop exercise, which: explored, from a high-level policy perspective, the interfaces across the three working groups; identified the critical priorities that participants believed their senior leaders would have in a real-world nuclear security incident; and underscored the value of cross-disciplinary exercises in advancing the GICNT's strategy.

Working Group Plans

The Dutch, Australian, and Moroccan chairs of the IAG Working Groups described their plans for future activities:

- The NDWG plans to: organize a series of regional exercises designed to address unique border detection challenges; focus on building partners' capacity to implement a coordinated government approach to detecting illicit trafficking of nuclear and other radioactive material within a State's interior; and utilize the "Exercise Playbook" to organize future activities.
- The NFWG plans to: utilize the Global Initiative Information Portal (GIIP) to uplift nuclear forensic capabilities self-assessment tools; focus on exercises that help partners validate existing mechanisms for seeking or providing international nuclear forensics assistance; and organize activities that promote the integration of nuclear forensics into national response plans.
- The RMWG plans to: focus on the fundamentals for developing and sustaining a national response framework; promote interagency coordination in support of response operations; and exercise principles and mechanisms that support international communication and requests for assistance during response operations.

All three Working Group Chairs emphasized the importance of continuing to implement joint working group and cross-disciplinary activities. The Co-Chairs recognized the

contributions of the Working Group Chairs in advancing the objectives of the GICNT. The Co-Chairs also encouraged other partners to assume leadership roles, such as volunteering to organize and host future activities.

Endorsement of GICNT Documents

The IAG Coordinator introduced three documents produced in the IAG Working Groups for endorsement by GICNT Partner Nations.

- **Fundamentals for Establishing and Maintaining a Nuclear Security Response Framework: A GICNT Best Practice Guide**, which provides a strategic-level reference and key considerations for the development of a national response framework for preparing to respond to and mitigate the impacts of a radiological or nuclear terrorism incident.
- **Exchanging Nuclear Forensics Information: Benefits, Challenges and Resources**, a GICNT document that aims to increase awareness of the benefits and challenges of exchanging nuclear forensics information associated with a nuclear security event and identify potential mechanisms for enabling information exchange.
- **Guidelines for Detection Within a State's Interior**, a GICNT best practice guide that completes the NDWG's four volume *Developing a Nuclear Detection Architecture Series* and specifically focuses on the identification of significant challenges in building detection capabilities in the interior and options to mitigate those challenges.

Partner nations adopted these documents by consensus, and they are now considered official products of the GICNT.

The NDWG Exercise Playbook

The NDWG has also developed the "Exercise Playbook" – a collection of realistic scenarios that illustrate key nuclear detection challenges and can be used to help partners organize national-level exercises to promote practical implementation of nuclear detection best practices. The "Exercise Playbook" is intended to be a "living document" that could be further refined and updated. The IAG Coordinator encouraged partners to consider submitting additional case studies and exercises that could be incorporated into the document.

"Atlas Lion" Outcomes Considered

Partners discussed key outcomes from the "Atlas Lion" exercise and identified several priorities that senior leaders would likely focus on during a real-world nuclear security incident. Several partners shared their national-level perspectives, which provided potential models and best practices for other partners. Partners agreed that key themes from "Atlas Lion," including interagency communication and coordination, international cooperation and assistance, public messaging, and promoting capacity-building in detection, forensics, and response, are critical topics that should continue to be the focus of future GICNT activities. "Atlas Lion" and the outcomes of several other GICNT activities implemented over the past two years have validated the existing structure of the GICNT, which serves as a platform for cross-disciplinary exchanges among groups of experts in different fields and underscores the value of cooperation among these different groups.

IAG Coordinator's Message to the Plenary

The outgoing IAG Coordinator made several recommendations to the Plenary to advance the GICNT strategy. Key

recommendations include: maintaining the GICNT's three Working Groups; continuing cross-disciplinary work; developing thematic series of activities that increase in complexity to build partnership capacity; and enhance the utility of the Global Initiative Information Portal (GIIP).

Endorsement of a New IAG Coordinator

The Co-Chairs introduced the Kingdom of the Netherlands as the candidate for the next two-year IAG Coordinator term. The Co-Chairs highlighted the Netherlands' contributions to nuclear security, including hosting the 2014 Nuclear Security Summit, 5th GICNT Plenary Meeting in 2009, and the March 2015 NFWG event, "Glowing Tulip," as well as chairing the NDWG since 2010. The Plenary endorsed the Kingdom of the Netherlands as IAG Coordinator by consensus.

Partner Nations Look Forward to 2017

The Netherlands, in its capacity as the new IAG Coordinator, announced the continuation of Morocco and Australia as Chairs of the RMWG and NFWG, respectively. The IAG Coordinator also announced the selection of Finland as the new NDWG Chair.

Building on the proposals made by the former IAG Coordinator and partners' feedback during the Plenary, the incoming IAG Coordinator presented ideas for a two-year strategy for advancing the GICNT's mission. The IAG Coordinator recognized partners' interest in continuing the strategic direction agreed upon at the Mexico Plenary, in particular by holding more practical activities, such as workshops and exercises, focused on building partners' capabilities. The IAG Coordinator emphasized the utility in holding additional regional activities that identify and advance approaches to addressing unique regional nuclear security challenges. The IAG Coordinator also highlighted the need to continue exploring cross-disciplinary themes across Working Groups to promote interaction between various disciplines. Addressing challenges related to sustainability of expertise and facilitating the exchange of best practices on legal and regulatory frameworks were identified as two specific examples of cross-disciplinary topics in need of further GICNT focus. In addition, the IAG Coordinator expressed interest in identifying options for promoting the participation of industry representatives in GICNT activities. The IAG Coordinator concluded his remarks by offering to host a high-level meeting during the GICNT's 10th anniversary in 2016.

From 2015-2017, GICNT partners will advance the IAG's plan of work by continuing to support the development and implementation of practical activities that promote capacity-building across the GICNT focus areas of nuclear detection, forensics, and response and mitigation. Several activities will be designed to promote regional cooperation, while also seeking to develop best practices that can be shared with and benefit the global partnership. The GICNT will also emphasize the importance of developing thematic series of events, ensuring continuity between each event, and making sure that all activities build strategically upon one another to continue enhancing partners' capabilities. In organizing future exercises, the GICNT will seek to focus on key fundamentals of exercise design, implementation, and self-assessment to help enable partners to develop expertise for developing and improving national-level exercise programs. Improving the use of the GIIP will play a key role in promoting continued collaboration and information sharing between events.

The Co-Chairs look forward to working further with the IAG Coordinator and all GICNT partners to develop future activities focusing on tangible outcomes for the next Plenary Meeting in 2017.

D – International Atomic Energy Agency Documents

Nuclear Security Recommendations on Physical Protection of Nuclear Materials and Nuclear Facilities (INFCIRC/225/Revision 5)

[International Atomic Energy Agency, 2005. Original version published as 'The Physical Protection of Nuclear Material' in 1975.]

1. INTRODUCTION

BACKGROUND

1.1. The IAEA has established a Nuclear Security Programme and instituted a series of publications on nuclear security to provide recommendations and guidance that States can use in establishing, implementing and maintaining their national nuclear security regime⁷

1.2. The IAEA Nuclear Security Series framework comprises four tiers of publications: Nuclear Security Fundamentals; Recommendations; Implementing Guides; and Technical Guidance.

1.3. The single top tier publication — Nuclear Security Fundamentals — contains objectives and essential elements of nuclear security and provides the basis for security recommendations.

1.4. The second tier set of Recommendations elaborates on the essential elements of nuclear security and presents the recommended requirements that should be implemented by States for the application of the fundamental principles.

1.5. The third and fourth tiers — Implementing Guides and Technical Guidance — provide more detailed information on implementing the Recommendations using appropriate measures.

1.6. This publication is complementary to and consistent with the Nuclear Security Recommendations publications on:

—Radioactive Material and Associated Facilities [1]; and

—Nuclear and Other Radioactive Material out of Regulatory Control [2].

In order to establish a comprehensive national nuclear security regime, the recommendations contained in all three publications should be implemented.

1.7. The present publication is a Recommendations level document for the physical protection of *nuclear material*⁸ and *nuclear facilities*. It is also Revision 5 of INFCIRC/225 [3].

1.8. The present publication will assist Member States to implement a comprehensive *physical protection regime*, including any obligations and commitments they might have as parties to international instruments [4] related to the physical protection of *nuclear material* and *nuclear facilities*, especially the Amendment to the Convention on the Physical Protection of Nuclear Material, of July 2005 [5].

PURPOSE

1.9. This publication provides a set of recommended requirements to achieve the four Physical Protection Objectives (see Section 2) and to apply the 12 Fundamental Principles (see Section 3) that were endorsed by the IAEA Board of the Governors and General Conference in September 2001 [6].

1.10. The purpose of this publication is to provide guidance to States and their *competent authority* on how to develop or

enhance, implement and maintain a *physical protection regime* for *nuclear material* and *nuclear facilities*, through the establishment or improvement of their capabilities to implement legislative and regulatory programmes to address the protection of *nuclear material* and *nuclear facilities* in order to reduce the risk of *malicious acts* involving that material or those facilities.

1.11. These recommended requirements are provided for consideration by States and their *competent authority* but are not mandatory upon a State and do not infringe on the sovereign rights of States.

SCOPE

1.12. This publication applies to the physical protection of *nuclear material*, including its physical protection during *transport*, and of *nuclear facilities* against *malicious acts*.

1.13. Three types of risk should be taken into consideration for the protection of *nuclear material* and *nuclear facilities*:

—Risk of *unauthorized removal* with the intent to construct a nuclear explosive device;

—Risk of *unauthorized removal* which could lead to subsequent dispersal;

—Risk of *sabotage*.

1.14. This publication applies to the physical protection of *nuclear material* against *unauthorized removal* with the intent to construct a nuclear explosive device, and to the physical protection of *nuclear facilities* and *nuclear material*, including during *transport*, against *sabotage*. Protection requirements against *unauthorized removal* of *nuclear material* for potential subsequent off-site dispersal are provided in IAEA Nuclear Security Series No. 14, Nuclear Security Recommendations on Radioactive Material and Associated Facilities [1].

1.15. When a facility contains *nuclear material* and other radioactive material, the two sets of protection requirements should be considered and implemented in a manner such that the more stringent requirements for physical protection are applied. This also applies to the *transport* of such material.

1.16. This publication includes actions undertaken to locate and recover *nuclear material* prior to the reporting of lost, missing or stolen *nuclear material* to a *competent authority* (e.g. regulatory body or law enforcement agency) according to national regulations. IAEA Nuclear Security Series No. 15, Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control [2], includes actions undertaken to locate and recover material after the reporting.

1.17. This publication does not provide safety requirements. These are contained in the IAEA Safety Standards Series. However, the publication takes safety considerations into account.

1.18. This publication is intended for use in the physical protection of *nuclear material* and *nuclear facilities* used for civil purposes. States may decide whether or not to extend the publication's use to other purposes.

STRUCTURE

1.19. Section 2 provides the objectives of a State's *physical protection regime* for *nuclear material* and *nuclear facilities*.

1.20. Section 3 provides the elements of a State's *physical protection regime* for *nuclear material* and *nuclear facilities*.

1.21. Section 4 provides the requirements for measures against *unauthorized removal* of *nuclear material* in use and storage.

1.22. Section 5 provides the requirements for measures against *sabotage* of *nuclear facilities* and *nuclear material* in use and storage.

1.23. Section 6 provides requirements for measures against *unauthorized removal* and *sabotage* of *nuclear material* during *transport*.

⁷ Historically, the term 'physical protection' has been used to describe what is now known as the nuclear security of nuclear material and nuclear facilities. As this publication is also Revision 5 of INFCIRC/225, the term physical protection continues to be used throughout the publication.

⁸ Italicised words in the text represent terms defined in the section of Definitions.

1.24. Italicized words in the text are defined in the Definitions section.

2. OBJECTIVES OF A STATE'S PHYSICAL PROTECTION REGIME

2.1. The overall objective of a State's nuclear security regime is to protect persons, property, society, and the environment from *malicious acts* involving *nuclear material* and other radioactive material. The objectives of the State's *physical protection regime*, which is an essential component of the State's nuclear security regime, should be:

—To **protect against unauthorized removal**. Protecting against theft and other unlawful taking of *nuclear material*.

—To **locate and recover missing nuclear material**. Ensuring the implementation of rapid and comprehensive measures to locate and, where appropriate, recover missing or stolen *nuclear material*.

—To **protect against sabotage**. Protecting *nuclear material* and *nuclear facilities* against *sabotage*.

—To **mitigate or minimize effects of sabotage**. Mitigating or minimizing the radiological consequences of *sabotage*.

2.2. The State's *physical protection regime* should seek to achieve these objectives through:

—Prevention of a *malicious act* by means of deterrence and by protection of sensitive information;

—Management of an attempted *malicious act* or a *malicious act* by an integrated system of *detection*, *delay*, and *response*;

—Mitigation of the consequences of a *malicious act*.

2.3. The objectives mentioned above should be addressed in an integrated and coordinated manner taking into account the different risks covered by nuclear security.

3. ELEMENTS OF A STATE'S PHYSICAL PROTECTION REGIME FOR NUCLEAR MATERIAL AND NUCLEAR FACILITIES

STATE RESPONSIBILITY

The responsibility for the establishment, implementation and maintenance of a *physical protection regime* within a State rests entirely with that State. (FUNDAMENTAL PRINCIPLE A: Responsibility of the State)

3.1. The State's *physical protection regime* is intended for all *nuclear material* in use and storage and during *transport* and for all *nuclear facilities*. The State should ensure the protection of *nuclear material* and *nuclear facilities* against *unauthorized removal* and against *sabotage*.

3.2. The State's *physical protection regime* should be reviewed and updated regularly to reflect changes in the *threat* and advances made in physical protection approaches, systems, and technology, and also the introduction of new types of *nuclear material* and *nuclear facilities*.

INTERNATIONAL TRANSPORT

The responsibility of a State for ensuring that nuclear material is adequately protected extends to the international transport thereof, until that responsibility is properly transferred to another State, as appropriate. (FUNDAMENTAL PRINCIPLE B: Responsibilities during International Transport)

3.3. A State's responsibility for physical protection should be determined either by the borders of its sovereign territory or the flag of registration of the transport vessel or aircraft. A State's *physical protection regime* for *nuclear material* in international *transport* should extend to the carriage of material on board ships or aircraft registered to that State while in international waters or airspace and until the receiving State acquires jurisdiction.

3.4. The State's *physical protection regime* should ensure that

nuclear material is always under the jurisdiction and continuous control of the State and that the point at which responsibility for physical protection is transferred from one State to another and from one carrier to another is clearly defined and implemented by all concerned. International transport operations should be overseen by one or more government organizations having the relevant authority and competence in transport security and/or the appropriate mode of *transport*.

3.5. The shipping State should consider, before allowing international *transport*, if the States involved in the *transport*, including the transit States:

—Are Parties to the Convention on the Physical Protection of Nuclear Material (INFCIRC/274 Rev.1); or

—Have concluded with it a formal agreement which ensures that physical protection arrangements are implemented in accordance with internationally accepted guidelines; or

—Formally declare that their physical protection arrangements are implemented according to internationally accepted guidelines; or

—Have issued licences or other authorizing documents which contain appropriate physical protection provisions for the *transport of nuclear material*.

3.6. When international shipments transit the territory of States other than the shipping State and the receiving State, the shipping State should, in advance, identify and inform the other States involved in such transit in order that the transit States can ensure that the proposed arrangements are in accordance with their national law⁹.

3.7. During the international *transport* of Category I *nuclear material*, and possibly other categories of *nuclear material*, especially if accompanied by armed guards, the responsibility for *physical protection measures* should be the subject of written arrangements accepted by the States concerned. The relevant *competent authority* of the shipping, receiving, and transit States, and the flag State of the *conveyance* should establish specific measures to ensure the maintenance of communication regarding the continued integrity of the shipment in order to ensure that responsibility for response planning and capabilities is defined and fulfilled. Additionally, any sensitive information shared by States concerned should be protected and the overall arrangements for the shipment should be in accordance with the relevant States' national laws. The point at which responsibility for physical protection is transferred from one State to another should be stated in advance and in sufficient time to enable the relevant State to make adequate physical protection arrangements.

ASSIGNMENT OF PHYSICAL PROTECTION RESPONSIBILITIES

3.8. The State should clearly define and assign physical protection responsibilities within all levels of involved governmental entities including response forces and for *operators* and, if appropriate, carriers. Provision should be made for appropriate integration and coordination of responsibilities within the State's *physical protection regime*. Clear lines of responsibility should be established and recorded between the relevant entities especially where the entity responsible for the armed response is separate from the *operator*.

LEGISLATIVE AND REGULATORY FRAMEWORK

Legislative and regulatory framework

The State is responsible for establishing and maintaining a legislative and regulatory framework to govern physical protection. This framework should provide for the establishment of applicable physical protection requirements and include a system of evaluation and licensing or other procedures to grant authorization. This framework should include a system of inspection of *nuclear facilities* and *transport* to verify compliance with

⁹ This publication does not affect the exercise of navigation rights and freedoms by ships and aircraft as provided for international law.

applicable requirements and conditions of the licence or other authorizing document, and to establish a means to enforce applicable requirements and conditions, including effective sanctions. (FUNDAMENTAL PRINCIPLE C: Legislative and Regulatory Framework)

3.9. A State should take appropriate measures within the framework of its national law to establish and ensure the proper implementation of the State's *physical protection regime*.

3.10. The State should define requirements — based on the *threat assessment* or *design basis threat* — for the physical protection of *nuclear material* in use, in storage, and during *transport*, and for *nuclear facilities* depending on the associated consequences of either *unauthorized removal* or *sabotage*. The State should ensure that the more stringent requirements for physical protection — either those against *unauthorized removal* or those against *sabotage* — are applied.

3.11. The State's legislation should provide for the comprehensive regulation of physical protection and include a licensing requirement or other procedures to grant authorization. The State should promulgate and review its regulations for the physical protection of *nuclear material* and *nuclear facilities* regularly. The regulations should be applicable to all such materials and facilities regardless of whether under State or private ownership.

3.12. The State should license activities or grant authorization only when such activities comply with its physical protection regulations. The State should make provisions for a detailed examination, made by the State's *competent authority*, of proposed *physical protection measures* in order to evaluate them for approval of these activities prior to licensing or granting authorization, and whenever a significant change takes place, to ensure continued compliance with physical protection regulations.

3.13. The State should ensure that evaluations include exercises to test the *physical protection system*, including the training and readiness of *guards* and/or *response forces*.

3.14. Taking into consideration State laws, regulations, or policies regarding personal privacy and job requirements, the State should determine the trustworthiness policy intended to identify the circumstances in which a trustworthiness determination is required and how it is made, using a *graded approach*. In implementing this policy, the State should ensure that processes are in place to determine the trustworthiness of persons with authorized access to sensitive information or, as applicable, to *nuclear material* or *nuclear facilities*.

3.15. Enforcement of physical protection regulations should be a part of a State's legislative and regulatory framework.

3.16. Sanctions against the *unauthorized removal* and against *sabotage*¹⁰ should be part of the State's legislative or regulatory system.

3.17. The recommended *physical protection measures* in this publication should be additional to, and not a substitute for other measures established for nuclear safety, nuclear material accountability and control or radiation protection purposes.

Competent authority

The State should establish or designate a *competent authority* which is responsible for the implementation of the legislative and regulatory framework, and is provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities. The State should take steps to ensure an effective independence between the functions of the State's *competent authority* and those of any other body in charge of the promotion or utilization of nuclear energy. (FUNDAMENTAL PRINCIPLE D: *Competent Authority*)

3.18. The State's *competent authority* should have a clearly

defined legal status and be independent from applicants/*operators*/*shippers*/*carriers* and have the legal authority to enable it to perform its responsibilities and functions effectively.

3.19. The State's *competent authority* should have access to information from the State's *system for nuclear material accountability and control*.

3.20. The State's *competent authority* should be responsible for verifying continued compliance with the physical protection regulations and licence conditions through regular inspections and for ensuring that corrective action is taken, when needed.

3.21. To ensure that *physical protection measures* are maintained in a condition capable of meeting the State's regulations and of effectively responding to the State's requirements for physical protection, the State's *competent authority* should ensure that evaluations based on *performance testing* are conducted by *operators* at *nuclear facilities* and, as appropriate, by *shippers* and/or *carriers* for *transport*. Evaluations should be reviewed by the State's *competent authority*, and should include administrative and technical measures, such as testing of *detection*, assessment, delay and communications systems, and reviews of the implementation of physical protection procedures. When deficiencies are identified, the *competent authority* should ensure that corrective action is taken by the *operator*, *shipper* and/or *carrier*.

3.22. The State's *physical protection regime* should include requirements for timely reporting of *nuclear security events* and information which enables the State's *competent authority* to be informed of any changes at *nuclear facilities* or related to *transport of nuclear material* that may affect *physical protection measures*.

Responsibilities of the licence holders

The responsibilities for implementing the various elements of physical protection within a State should be clearly identified. The State should ensure that the prime responsibility for the implementation of physical protection of *nuclear material* or of *nuclear facilities* rests with the holders of the relevant licences or of other authorizing documents (e.g. *operators* or *shippers*). (FUNDAMENTAL PRINCIPLE E: *Responsibility of the Licence Holders*)

3.23. In this publication, licence holders are defined as either *operators* or *shippers*.

3.24. The *operator*, *shipper* and carrier should comply with all applicable regulations and requirements established by the State and the *competent authority*.

3.25. The *operator*, *shipper* and carrier should cooperate and coordinate with all other State entities having physical protection responsibilities, such as off-site *response forces*.

3.26. The *operator* should ensure control of, and be able to account for, all *nuclear material* at a *nuclear facility* at all times. The *operator* should report any confirmed accounting discrepancy in a timely manner as stipulated by the *competent authority*.

3.27. The *operator* should prepare a security plan as part of its application to obtain a licence. The security plan should be based on the *threat assessment* or the *design basis threat* and should include sections dealing with design, evaluation, implementation, and maintenance of the *physical protection system*, and *contingency plans*. The *competent authority* should review and approve the security plan, the implementation of which should then be part of the licence conditions. The *operator* should implement the approved security plan. The *operator* should review the security plan regularly to ensure it remains up to date with the current operating conditions and the physical protection system. The *operator* should submit an amendment to the security plan for prior approval by the *competent authority* before making significant modifications, including temporary changes, to arrangements detailed in the approved security plan. The *competent authority* should verify the *operator's* compliance with the security plan.

3.28. For a new *nuclear facility*, the site selection and design

¹⁰ The definition of *sabotage* is of a technical nature and does not aim to provide a definition for the purposes of criminal law, such as those provided in the relevant international instruments of national law of States.

should take physical protection into account as early as possible and also address the interface between physical protection, safety and nuclear material accountancy and control to avoid any conflicts and to ensure that all three elements support each other.

3.29. The *operator* should develop and implement means and procedures for evaluations, including *performance testing*, and maintenance of the *physical protection system*.

3.30. Whenever the *physical protection system* is determined to be incapable of providing the required level of protection, the *operator*, *shipper* and/or carrier should immediately implement compensatory measures to provide adequate protection. The *operator* and/or *shipper* should then — within an agreed period — plan and implement corrective actions to be reviewed and approved by the *competent authority*.

INTERNATIONAL COOPERATION AND ASSISTANCE

3.31. States are encouraged to cooperate and consult, and to exchange information on physical protection techniques and practices, either directly or through the International Atomic Energy Agency and other relevant international organizations.

3.32. States should inform the International Atomic Energy Agency, and other States as applicable, of appropriate points of contact for matters related to the physical protection of *nuclear material* and *nuclear facilities*.

3.33. In the case of *unauthorized removal* or *sabotage* or credible threat thereof, the State should provide appropriate information as soon as possible to other States which appear to it to be concerned, and to inform, where appropriate, the International Atomic Energy Agency and other relevant international organizations.

IDENTIFICATION AND ASSESSMENT OF THREATS

The State's physical protection should be based on the State's current evaluation of the threat. (FUNDAMENTAL PRINCIPLE G: Threat)

3.34. The appropriate State authorities, using various credible information sources, should define the *threat* and associated capabilities in the form of a *threat assessment* and, if appropriate, a *design basis threat*. A *design basis threat* is developed from an evaluation by the State of the threat of *unauthorized removal* and of *sabotage*.

3.35. The States should ensure that the *competent authority* has access to information from other organizations in the State on present and foreseeable threats to nuclear activities.

3.36. When considering the threat, due attention should be paid to *insiders*. They could take advantage of their access rights, complemented by their authority and knowledge, to bypass dedicated physical protection elements or other provisions, such as safety procedures. The *physical protection system* should be assisted by nuclear material accountancy and control measures to deter and detect the protracted theft of *nuclear material* by an *insider*.

3.37. The State's physical protection requirements for *nuclear material* and *nuclear facilities* should be based on a *design basis threat*, specifically for:

—*Unauthorized removal* of Category I *nuclear material* (defined in Section 4),

—*Sabotage* of *nuclear material* and *nuclear facilities* that has potentially high radiological consequences.

The State should decide whether to use a *threat assessment* or *design basis threat* for other *nuclear material* and *nuclear facilities*.

3.38. The State's *competent authority* should require the use of a *threat assessment* and/or a *design basis threat* as a common basis for the design and implementation of the physical protection system by the *operator*, *shipper* and carrier. The State should consider whether or not the *threat assessment* and/or *design basis threat* are the same for *nuclear facilities* and for *transport*.

3.39. The State should continuously review the threat and evaluate the implications of any changes in the *threat assessment* or *design basis threat*. The State's competent authority should take steps to ensure that any change is appropriately reflected in the regulations and by the *operator's*, *shipper's* and carrier's *physical protection measures*. Recognizing that a revision of the *design basis threat* may take additional time in this process, short term compensatory *physical protection measures* based on the current *threat assessment* should be implemented. The effectiveness of these measures against the current threat should be evaluated. The *design basis threat* should then be reviewed in the light of the revised *threat assessment*.

3.40. The State should give attention to providing protection measures against any airborne threat and against possible *stand-off attacks* specified in the State's *threat assessment* or *design basis threat*.

RISK BASED PHYSICAL PROTECTION SYSTEM AND MEASURES

Risk management

3.41. The State should ensure that the State's *physical protection regime* is capable of establishing and maintaining the risk of *unauthorized removal* and *sabotage* at acceptable levels through risk management. This requires assessing the *threat* and the potential consequences of *malicious acts*, and then developing a legislative, regulatory and programmatic framework which ensures that appropriate effective *physical protection measures* are put in place.

3.42. Risk can be managed by:

—Reducing the threat. The threat may be reduced, for example, by the deterrence of robust *physical protection measures*, or through the confidentiality of sensitive information;

—Improving the effectiveness of the *physical protection system*. The *physical protection system's* effectiveness may be increased, for example, by implementing *defence in depth* or establishing and maintaining *nuclear security culture*;

—Reducing the potential consequences of *malicious acts* by modifying specific contributing factors, for example, the amount and type of *nuclear material* and the design of the facility.

Graded approach

Physical protection requirements should be based on a graded approach, taking into account the current evaluation of the threat, the relative attractiveness, the nature of the nuclear material and potential consequences associated with the unauthorized removal of nuclear material and with the sabotage against nuclear material or nuclear facilities. (FUNDAMENTAL PRINCIPLE H: Graded Approach)

3.43. A *graded approach* is used to provide higher levels of protection against events that could result in higher consequences. The State should decide what level of risk is acceptable and what level of protection against the threat should be provided.

3.44. For protection against *unauthorized removal*, the State should regulate the categorization of *nuclear material* in order to ensure an appropriate relationship between the *nuclear material* of concern and the *physical protection measures*. For protection against *sabotage*, the State should establish its threshold(s) of *unacceptable radiological consequences* in order to determine appropriate levels of physical protection taking into account existing nuclear safety and radiation protection.

Defence in depth

The State's requirements for physical protection should reflect a concept of several layers and methods of protection (structural, other technical, personnel and organizational) that have to be overcome or circumvented by an adversary in order to achieve his objectives. (FUNDAMENTAL PRINCIPLE I: Defence in Depth)

3.45. State requirements for physical protection should be based on the concept of *defence in depth*. The concept of

physical protection is one which requires a designed mixture of hardware (security devices), procedures (including the organization of *guards* and the performance of their duties) and facility design (including layout).

3.46. The three physical protection functions of *detection*, *delay*, and *response* should each use *defence in depth* and apply a *graded approach* to provide appropriate effective protection.

3.47. *Defence in depth* should take into account the capability of the *physical protection system* and the *system for nuclear material accountability and control* to protect against *insiders* and external threats.

SUSTAINING THE PHYSICAL PROTECTION REGIME

Security culture

All organizations involved in implementing physical protection should give due priority to the security culture, to its development and maintenance necessary to ensure its effective implementation in the entire organization. (FUNDAMENTAL PRINCIPLE F: Security Culture)

3.48. The foundation of *nuclear security culture* should be the recognition that a credible threat exists, that preserving nuclear security is important, and that the role of the individual is important.

3.49. The four component groups — the State, organizations, managers in organizations and individuals — should work together to establish and maintain an effective *nuclear security culture*.

3.50. The State should promote a *nuclear security culture* and encourage all security organizations to establish and maintain one. A *nuclear security culture* should be pervasive in all elements of the *physical protection regime*.

3.51. All organizations that have a role in physical protection should make their responsibilities known and understood in a statement of security policy issued by their executive management to demonstrate the management's commitment to provide guidelines to the staff and to set out the organization's security objectives. All personnel should be aware of and regularly educated about physical protection.

Quality assurance

A quality assurance policy and quality assurance programmes should be established and implemented with a view to providing confidence that specified requirements for all activities important to physical protection are satisfied. (FUNDAMENTAL PRINCIPLE J: Quality Assurance).

3.52. The quality assurance policy and programmes for physical protection should ensure that a *physical protection system* is designed, implemented, operated and maintained in a condition capable of effectively responding to the *threat assessment* or *design basis threat* and that it meets the State's regulations, including its prescriptive and/or performance based requirements.

Confidentiality

The State should establish requirements for protecting the confidentiality of information, the unauthorized disclosure of which could compromise the physical protection of nuclear material and nuclear facilities. (FUNDAMENTAL PRINCIPLE L: Confidentiality)

3.53. The State should take steps to ensure appropriate protection of specific or detailed information the unauthorized disclosure of which could compromise the physical protection of *nuclear material* and *nuclear facilities*. It should specify what information needs to be protected and how it should be protected, using a *graded approach*.

3.54. Management of a *physical protection system* should limit access to sensitive information to those whose trustworthiness has been established appropriate to the sensitivity of the information and who need to know it for the performance of their duties. Information addressing possible vulnerabilities in *physical protection systems* should be highly protected.

3.55. Sanctions against persons violating confidentiality should be part of the State's legislative or regulatory system.

Sustainability programme

3.56. The State should establish a sustainability programme to ensure that its *physical protection regime* is sustained and effective in the long term by committing the necessary resources.

3.57. *Operators, shippers* and carriers should establish sustainability programmes for their *physical protection system*. Sustainability programmes should encompass:

—Operating procedures (instructions).

—Human resource management and training.

—Equipment updating, maintenance, repair and calibration.

—*Performance testing* and operational monitoring.

—Configuration management (the process of identifying and documenting the characteristics of a facility's *physical protection system* — including computer systems and software — and of ensuring that changes to these characteristics are properly developed, assessed, approved, issued, implemented, verified, recorded and incorporated into the facility documentation).

—Resource allocation and operational cost analysis.

PLANNING AND PREPAREDNESS FOR AND RESPONSE TO NUCLEAR SECURITY EVENTS

***Contingency (emergency) plans* to respond to unauthorized removal of nuclear material or sabotage of nuclear facilities or nuclear material, or attempts thereof, should be prepared and appropriately exercised by all licence holders and authorities concerned. (Fundamental Principle K: Contingency Plans)**

3.58. The State should establish a *contingency plan*. The State's *competent authority* should ensure that the *operator* prepares *contingency plans*¹¹ to effectively counter the threat assessment or design basis threat taking actions of the response forces into consideration.

3.59. The *operator's contingency plan* should be approved by the State's *competent authority* as a part of the security plan.

3.60. The coordination between the *guards* and *response forces* during a *nuclear security event* should be regularly exercised. In addition, other facility personnel should be trained and prepared to act in full coordination with the *guards*, *response forces* and other response teams for implementation of the plans.

3.61. Arrangements should be made to ensure that during emergency conditions and exercises, the effectiveness of the *physical protection system* is maintained.

3.62. The *operator* should initiate its *contingency plan* after *detection* and assessment of any *malicious act*.

4. REQUIREMENTS FOR MEASURES AGAINST UNAUTHORIZED REMOVAL OF NUCLEAR MATERIAL IN USE AND STORAGE

GENERAL

Basis for concern

4.1. An objective of the State's *physical protection regime* is to prevent *unauthorized removal*. An associated objective of the State's *physical protection regime*, also addressed in this section, is to ensure the implementation of rapid and comprehensive measures to locate and recover missing or stolen *nuclear material*. Measures to locate and recover *nuclear material* after the reporting of it as lost, missing or stolen to a *competent authority* are addressed in IAEA Nuclear Security Series No. 15, Nuclear Security Recommendations on Nuclear

¹¹ *Contingency plans* prepared by the *operator* should be consistent with and complementary to the *contingency plan* prepared by the State as mentioned in paras 4.52, 4.53, 5.46, and 5.47.

and Other Radioactive Material out of Regulatory Control [2].

4.2. Levels of protection defined in this section are based on categorization of *nuclear material* for use in the construction of a nuclear explosive device. However, *nuclear material* is radioactive material, which has also to be protected against *unauthorized removal* that could have significant consequences if dispersed or used otherwise for a malicious purpose. Protection requirements against *unauthorized removal* of *nuclear material* for potential subsequent offsite radiological dispersal are provided in IAEA Nuclear Security Series No. 14, Nuclear Security Recommendations on Radioactive Material and Associated Facilities [1].

4.3. These two sets of requirements for protection against *unauthorized removal* should be considered and implemented in a manner such that the more stringent requirements for physical protection are applied.

4.4. When implementing requirements for protection against *unauthorized removal*, the requirements for the protection against *sabotage* addressed in Section 5 should also be taken into account. Appropriate *physical protection measures* should then be designed based on the more stringent applicable requirements and implemented for both in an integrated manner.

Categorization

4.5. The primary factor in determining the *physical protection measures* against *unauthorized removal* is the *nuclear material* itself. Table 1 categorizes the different types of *nuclear material* in terms of element, isotope, quantity and irradiation. This categorization is the basis for a *graded approach* for protection against *unauthorized removal* of *nuclear material* that could be used in a nuclear explosive device, which itself depends on the type of nuclear material (e.g. plutonium and uranium), isotopic composition (i.e. content of fissile isotopes), physical and chemical form, degree of dilution, radiation level, and quantity.

4.6. According to footnote 'e' in Table 1, the protection of *nuclear material* with a radiation level that exceeds 1 Gy/h (100 rad/h) at 1 m unshielded, which is classified as Category I or II before irradiation, may be reduced one category level below that determined by the fissile content of the material. However, if the *threat assessment* or *design basis threat* includes an adversary who is willing to perform a *malicious act*, States should carefully consider whether or not to reduce

Table 1. CATEGORIZATION OF NUCLEAR MATERIAL

Material	Form	Category I	Category II	Category III ^c
1. Plutonium ^a	Unirradiated ^b	2 kg or more	Less than 2 kg but more than 500 g	500 g or less but more than 15 g
2. Uranium-235 (²³⁵ U)	Unirradiated ^b - Uranium enriched to 20% ²³⁵ U or more - Uranium enriched to 10% ²³⁵ U but less than 20% ²³⁵ U	5 kg or more	Less than 5 kg but more than 1 kg 10 kg or more	1 Kg or less but more than 15 g Less than 10 kg but more than 1 kg
3. Uranium-233 (²³³ U)	Unirradiated ^b	2 kg or more	Less than 2 kg but more than 500 g	500 g or less but more than 15 g
4. Irradiated fuel (The categorization of irradiated fuel in			Depleted or natural uranium, thorium,	

the table is based on international <i>transport</i> considerations. The State may assign a different category for domestic use, storage and <i>transport</i> taking all relevant factors into account.)			or low enriched fuel (less than 10% fissile content) ^{d, e}	
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Note: This table is not to be used or interpreted independently of the text of the entire publication.

^a All plutonium except that with isotopic concentration exceeding 80% in plutonium-238.

^b Material not irradiated in a reactor or material irradiated in a reactor but with radiation level equal to or less than 1Gy/h. (100 rad/h) at 1m unshielded.

^c Quantities not falling in Category III and natural uranium, depleted uranium and thorium should be protected at least in accordance with prudent management practice.

^d Although this level of protection is recommended, it would be open to States, upon evaluation of the specific circumstances, to assign a different category of physical protection.

^e Other fuel which by virtue of its original fissile material content is classified as Category I or II before irradiation may be reduced one category level while the radiation level from the fuel exceeds 1 Gy/h (100 rad/h) at one metre unshielded.

The categorization levels of the material on the basis of radiation levels sufficient to incapacitate the adversary before the *malicious act* is completed.

4.7. *Nuclear material*, which is in a form that is no longer usable for any nuclear activity, minimizes environmental dispersal and is practically irrecoverable, may be protected against *unauthorized removal* in accordance with prudent management practice.

4.8. In determining the levels of physical protection in a facility, which may consist of several buildings, the *operator* may identify, in agreement with the State's *competent authority*, part of the *nuclear facility* which contains *nuclear material* of a different category and which is therefore protected at a different level than the rest of the *nuclear facility*. Conversely, consideration may need to be given to adding together the total amount of *nuclear material* contained in a number of buildings to determine the appropriate protection arrangements for this group of buildings.

REQUIREMENTS FOR PHYSICAL PROTECTION AGAINST UNAUTHORIZED REMOVAL IN USE AND STORAGE

General

4.9. The *physical protection system* of a *nuclear facility* should be integrated and effective against both *sabotage* and *unauthorized removal*.

4.10. Computer based systems used for physical protection, nuclear safety, and nuclear material accountancy and control should be protected against compromise (e.g. cyber attack, manipulation or falsification) consistent with the *threat assessment* or *design basis threat*.

4.11. The *operator* should assess and manage the physical protection interface with safety and nuclear material accountancy and control activities in a manner to ensure that they do not adversely affect each other and that, to the degree possible, they are mutually supportive.

4.12. *Nuclear material* that is required to be protected in accordance with prudent management practice (see Table 1, footnote c and para. 4.7) should be secured against *unauthorized removal* and unauthorized access.

Requirements for Categories I, II and III nuclear material

4.13. In addition to the recommendations in paras 4.9–4.12, the following recommendations apply to Categories I, II and III *nuclear material*.

4.14. *Nuclear material* should be used or stored within at least a *limited access area*.

4.15. Provision should be made for detecting unauthorized intrusion and for appropriate action by sufficient *guards* and/or *response forces* to address a *nuclear security event*.

4.16. Every *nuclear material* handler should be required to conform to procedures for transferring custody of the *nuclear material* to the succeeding handler. Additionally, *nuclear material* handlers should endeavour to ascertain on reporting for duty that no interference with or *unauthorized removal* has taken place.

4.17. Technical means and procedures for access control, such as keys and computerized access lists, should be protected against compromise, e.g. manipulation or falsification.

4.18. For movements of Category III *nuclear material* within a *limited access area*, the *operator* should apply all prudent and necessary *physical protection measures*.

4.19. *Contingency plans* should be prepared to counter *malicious acts* effectively and to provide for appropriate response by *guards* or *response forces*. Such plans should also provide for the training of facility personnel in their actions.

4.20. The State should ensure that *response forces* are familiarized with the site and *nuclear material* locations and have adequate knowledge of radiation protection to ensure that they are fully prepared to conduct necessary response actions, considering their potential impact on safety.

Requirements for Categories I and II nuclear material

4.21. In addition to the recommendations in paras 4.9–4.20, the following recommendations apply to Categories I and II *nuclear material*.

4.22. *Nuclear material* should be used or stored within at least a *protected area*.

4.23. A *protected area* should be located inside a *limited access area*. The *protected area* perimeter should be equipped with a *physical barrier*, intrusion detection and assessment to detect unauthorized access. These protection measures should be configured to provide time for assessment of the cause of alarms, and provide adequate delay for an appropriate response, under all operational conditions. Alarms generated by intrusion detection sensors should be promptly and accurately assessed and appropriate action taken.

4.24. The number of access points into the *protected area* should be kept to the minimum necessary. All points of potential access should be appropriately secured and fitted with alarms.

4.25. Vehicles, persons and packages entering and leaving the *protected area* should be subject to search for *detection* and prevention of unauthorized access and of introduction of prohibited items or removal of *nuclear material*, as appropriate. Entry of vehicles into the *protected area* should be strictly minimized and limited to designated parking areas.

4.26. Only authorized persons should have access to the *protected area*. Effective access control measures should be taken to ensure the *detection* and prevention of unauthorized access. The number of authorized persons entering the *protected area* should be kept to the minimum necessary. Persons authorized unescorted access to the *protected area* should be limited to persons whose trustworthiness has been determined. Persons whose trustworthiness has not been determined such as temporary repair, service or construction workers and visitors should be escorted by persons authorized unescorted access.

4.27. The identity of authorized persons entering the *protected area* should be verified. Passes or badges should be issued and visibly displayed inside the *protected area*.

4.28. A record should be kept of all persons who have access to or possession of keys, keycards and/or other systems, including

computer systems that control access to *nuclear material*.

4.29. On-site movements between two *protected areas* should be treated in compliance with the requirements for *nuclear material* during *transport*, after taking into account existing *physical protection measures* at the facility.

4.30. A permanently staffed *central alarm station* should be provided for monitoring and assessment of alarms, initiation of response, and communication with the *guards*, *response forces*, and facility management. Information acquired at the *central alarm station* should be stored in a secure manner. The *central alarm station* should normally be located in a *protected area* and protected so that its functions can continue in the presence of a threat, e.g. hardened. Access to the *central alarm station* should be strictly minimized and controlled.

4.31. Alarm equipment, alarm communication paths, and the *central alarm station* should be provided with an uninterruptible power supply and be tamper protected against unauthorized monitoring, manipulation and falsification.

4.32. Dedicated, redundant, secure and diverse transmission systems for two way voice communication between the *central alarm station* and the *response forces* should be provided for activities involving *detection*, assessment and response. Dedicated two way secure voice communication should be provided between *guards* and the *central alarm station*.

4.33. A 24 hour guarding service and *response forces* should be provided to counter effectively any attempted *unauthorized removal*. The *central alarm station* personnel and off-site *response forces* should communicate at scheduled intervals. The *guards* and *response forces* should be trained and adequately equipped for their functions in accordance with national laws and regulations.

4.34. The *guards* should conduct random patrols of the *protected area*. The main functions of the patrols should be to:

- Deter an adversary;
- Detect intrusion;
- Inspect visually the physical protection components;
- Supplement the existing *physical protection measures*;
- Provide an initial response.

4.35. Evaluations, including *performance testing*, of the *physical protection measures* and of the *physical protection system*, including timely response of the *guards* and *response forces* should be conducted regularly to determine reliability and effectiveness against the *threat*. These should be carried out with full cooperation between the *operator* and *response forces*. Significant deficiencies and action taken should be reported as stipulated by the *competent authority*.

Requirements for Category I nuclear material

4.36. In addition to the recommendations in paras 4.9–4.35, the following recommendations apply to Category I *nuclear material*.

4.37. *Nuclear material* should be used or stored within an *inner area*. An *inner area* could also be a *vital area*.

4.38. An *inner area* should provide an additional layer to the *protected area* for *detection*, access control and delay against *unauthorized removal*. *Inner areas* should be appropriately secured and fitted with alarms when unattended.

4.39. *Inner areas* should provide delay against unauthorized access to allow for a timely and appropriate response to an *unauthorized removal*. Delay measures should be designed considering both *insiders'* and external adversaries' capabilities, and should take into account and be balanced for all potential points of intrusion.

4.40. The number of access points to the *inner areas* should be kept to the minimum necessary (ideally only one). All points of potential access should be appropriately secured and fitted with alarms.

4.41. Vehicle barriers should be installed at an appropriate distance from the *inner area* to prevent the penetration of

unauthorized land and waterborne vehicles specified in the *design basis threat* that could be used by an adversary for committing a *malicious act*. Attention should also be given to providing protection measures against any airborne threat specified in the *design basis threat* for the *operator*.

4.42. Only authorized persons should have access to the *inner area*. Effective access control measures should be taken to ensure the *detection* and prevention of unauthorized access. The number of authorized persons entering the *inner area* should be kept to the minimum necessary. Persons with authorized access to the *inner area* should be limited to those whose trustworthiness has been determined. In exceptional circumstances and for a limited period, persons whose trustworthiness has not been determined should be provided access only when escorted by persons authorized unescorted access.

4.43. Vehicles, persons and packages should be subject to search on entering both the *protected* and *inner areas* for *detection* and prevention of unauthorized access and of introduction of prohibited items. Vehicles, persons and packages leaving the *inner area* should be subject to search for *detection* and prevention of *unauthorized removal*. Instruments for the *detection* of *nuclear material*, metals, and explosives could be used for such searches.

4.44. Private vehicles should be prohibited access to *inner areas*.

4.45. Records should be kept of all persons who access *inner areas* and of all persons who have access to or possession of keys, keycards and/or other systems, including computer systems that control access to *inner areas*.

4.46. Inside the *inner area*, *nuclear material* should be stored in a hardened room ('strong room') or hardened enclosure that provides an additional layer of *detection* and delay against removing the material. This storage area should be locked and alarms activated except during authorized access to the material. When *nuclear material* is kept in an unoccupied work area outside this storage area, e.g. overnight, equivalent compensatory *physical protection measures* should be established.

4.47. Provisions, including redundancy measures, should be in place to ensure that the functions of the *central alarm station* in monitoring and assessment of alarms, initiation of response and communication can continue during an emergency (e.g. a backup alarm station).

4.48. To counter the *insider* threat, whenever an *inner area* is occupied, *detection* of unauthorized action should be achieved by constant surveillance (e.g. *the two person rule*).

4.49. *Guards* and *response forces* should provide an effective and timely response to prevent an adversary from completing the *unauthorized removal*. At least annually, *performance testing* of the *physical protection system* should include appropriate exercises, for example *force-on-force exercises*, to determine if the *guards* and the *response forces* can reach this objective.

REQUIREMENTS FOR MEASURES TO LOCATE AND RECOVER MISSING OR STOLEN NUCLEAR MATERIAL

Scope and boundary

This section provides recommendations for the State and *operator* that should participate in a coordinated response for the location and recovery of missing or stolen *nuclear material*. For the *operator*, these location and recovery measures should include on-site operations and appropriate assistance to the State organizations for off-site operations.

Requirements for the State

4.50. The State should ensure that its *physical protection regime* includes rapid response and comprehensive measures to locate and recover missing or stolen *nuclear material*. These location and recovery measures should include on-site and off-site operations.

4.51. The State should define the roles and responsibilities of

appropriate State response organizations and *operators* to locate and to recover any missing or stolen *nuclear material*.

4.52. The State should ensure that *contingency plans* — including interfaces with safety, as appropriate — are established by *operators* to locate and to recover any missing or stolen *nuclear material*.

4.53. The responsible State organizations should develop *contingency plans* for the rapid location and recovery of *nuclear material* which has been declared missing or stolen from facilities.

4.54. For the coordination of location and recovery operations, the State should develop arrangements and protocols between appropriate State response organizations and *operators*. The arrangements should be clearly documented and this documentation should be made available to all relevant organizations.

4.55. The State should ensure that *operators* and appropriate State response organizations conduct exercises to assess and validate the *contingency plans* and also to train the various participants in how to react in such a situation.

4.56. The State should ensure that *contingency plans* for location and recovery are regularly reviewed and updated.

Requirements for the operator

The recommendations for the *operator* are organized by the following process for the location and recovery of missing or stolen *nuclear material*. The steps in this process include *detection*, confirmation, declaration, location, securing and return of the missing or stolen *nuclear material*.

4.57. The *operator* should ensure that any missing or stolen *nuclear material* is detected in a timely manner by means such as the system for *nuclear material accountability and control* and the *physical protection system* (e.g. periodic inventories, inspections, access control searches, radiation detection screening).

4.58. The *operator* should confirm any missing or stolen *nuclear material* by means of a rapid emergency inventory as soon as possible within the time period specified by the State. A *system for nuclear material accountability and control* should provide accurate information about the potentially missing *nuclear material* in the facility following a *nuclear security event*.

4.59. The *operator* should notify the *competent authority* and other relevant State organizations of missing or stolen *nuclear material* as specified by the State.

4.60. The *operator's* measures to locate and recover missing or stolen *nuclear material* should be included in its *contingency plan*, and should be regularly tested and evaluated. Appropriate joint exercises should be held with the *competent authority* and other State organizations.

4.61. The *operator* should take all appropriate measures to locate, as soon as possible, any declared missing or stolen *nuclear material* on-site and possibly off-site (in hot pursuit) in accordance with the legal and regulatory framework and the *contingency plan*.

4.62. As soon as possible after the missing or stolen *nuclear material* has been located and identified, the *operator* should, in accordance with the *contingency plan*, secure this material in situ and then return it to an appropriate *nuclear facility* with due authorization from the *competent authority*.

4.63. The *operator* should provide any other necessary assistance to the State organizations to locate and recover *nuclear material* and should cooperate during subsequent investigations and prosecution.

5. REQUIREMENTS FOR MEASURES AGAINST SABOTAGE OF NUCLEAR FACILITIES AND NUCLEAR MATERIAL IN USE AND STORAGE

GENERAL

5.1. An objective of the State's *physical protection regime* is to protect against *sabotage*. An associated objective of the State's

physical protection regime also addressed in this section is to ensure the implementation of rapid and comprehensive measures to mitigate or minimize the radiological consequences of *sabotage*, taking emergency plans into account. This section applies to *nuclear facilities*, including nuclear reactors (nuclear power plants and research reactors) and nuclear fuel cycle facilities (including conversion, enrichment, fabrication, reprocessing, and storage facilities). *Nuclear facilities* frequently contain other hazardous material that could have severe non-radiological consequences but this section does not address such material.

5.2. The recommendations for *physical protection measures* in this section are made on the basis of the potential radiological consequences resulting from an act of *sabotage*. The categorization specified in Section 4 is based on the attractiveness of material for the potential construction of a nuclear explosive device, and cannot be directly applied to protection against *sabotage*.

5.3. When implementing requirements for protection against *sabotage*, the requirements for the protection against *unauthorized removal* addressed in Section 4 should also be taken into account. Appropriate *physical protection measures* should then be designed based on the more stringent applicable requirements and implemented for both in an integrated manner.

BASIS FOR A GRADED APPROACH FOR PHYSICAL PROTECTION AGAINST SABOTAGE

This section presents the approach to be used to define the *nuclear facilities* and *nuclear material* which require protection against *sabotage*.

5.4. For each *nuclear facility*, an analysis, validated by the *competent authority*, should be performed to determine whether the radioactive inventory has the potential to result in *unacceptable radiological consequences* as determined by the State, assuming that the *sabotage* acts will be successfully completed while ignoring the impact of the physical protection or mitigation measures.

5.5. On the basis of these analyses, the State should consider the range of radiological consequences that can be associated with all its *nuclear facilities* and should appropriately grade the radiological consequences that exceed its limits for *unacceptable radiological consequences* in order to assign appropriate levels of protection.

5.6. In accordance with the fundamental principle of *graded approach*, the State should define a set of physical protection design objectives and/or measures for each assigned level of protection.

5.7. If the potential radiological consequences of *sabotage* are less severe than the *unacceptable radiological consequences* defined by the State, then the *operator* should still protect safety related equipment and devices by controlling access to them and securing them.

5.8. If the potential radiological consequences of *sabotage* exceed the State's *unacceptable radiological consequences*, then the *operator* should identify equipment, systems or devices, or *nuclear material*, the *sabotage* of which could directly or indirectly lead to this condition as potential *sabotage* targets and protect them in accordance with the following design process (paras 5.9–5.19) and protection requirements (paras 5.20–5.43). The results of safety analysis provide useful input, including target identification and potential radiological consequences, and should be considered during design of the *physical protection system*.

REQUIREMENTS FOR THE PROCESS TO DESIGN A PHYSICAL PROTECTION SYSTEM AGAINST SABOTAGE

This section presents the process to be used to design the *physical protection system* of a *nuclear facility* and *nuclear material* which require protection against *sabotage*.

5.9. Using the *threat assessment* or *design basis threat*, the *operator* — in cooperation with the State's *competent authority* — should define credible scenarios by which adversaries could

carry out sabotage of *nuclear facilities* and *nuclear material*.

5.10. When defining scenarios, the *operator* should consider the location of the *nuclear facility* and all *nuclear material* and other radioactive material, including radioactive waste, especially those at the same location inside a *nuclear facility*.

5.11. *Sabotage* scenarios should consider external and/or *insider* adversaries who attempt to disperse *nuclear material* or other radioactive material or to damage or interfere with equipment, systems, structures, components or devices, including possible *stand-off attack*, consistent with the State's *threat assessment* or *design basis threat*.

5.12. The *operator* should design a *physical protection system* that is effective against the defined *sabotage* scenarios and complies with the required level of protection for the *nuclear facility* and *nuclear material*.

5.13. The *physical protection system* against *sabotage* should be designed as an element of an integrated system to prevent the potential consequences of *sabotage* by taking into account the robustness of the engineered safety and operational features, and the fire protection, radiation protection and emergency preparedness measures.

5.14. The *physical protection system* should be designed to deny unauthorized access of persons or equipment to the targets, minimize opportunity of *insiders*, and to protect the targets against possible *stand-off attacks* consistent with the State's *threat assessment* or *design basis threat*. The response strategy should include denial of adversary access to the *sabotage* targets or denial of adversary task completion at the *sabotage* targets. Denying access to the targets or denial of adversary task completion is accomplished by the primary physical protection functions of *detection*, delay and response, whereas protecting against *stand-off attacks* involves facility design considerations, barrier design considerations to implement a stand-off distance, and other disruption measures.

5.15. The *operator* should evaluate and the *competent authority* should validate the design of *physical protection system* effectiveness to verify that it complies with the required level of protection for the *nuclear facility* and *nuclear material*.

5.16. If the evaluation of the design of *physical protection system* indicates that it is ineffective, then the *operator* should redesign the *physical protection system* and re-evaluate its effectiveness.

5.17. The *physical protection system* of a *nuclear facility* should be integrated and effective against both *sabotage* and *unauthorized removal*.

5.18. The *operator* should assess and manage the physical protection interface with safety activities in a manner to ensure that they do not adversely affect each other and that, to the degree possible, they are mutually supportive.

5.19. Computer based systems used for physical protection, nuclear safety, and nuclear material accountability and control should be protected against compromise (e.g. cyber attack, manipulation or falsification) consistent with the *threat assessment* or *design basis threat*.

REQUIREMENTS FOR PHYSICAL PROTECTION AGAINST SABOTAGE AT NUCLEAR FACILITIES

This section provides recommendations for physical protection at *nuclear facilities*, including nuclear power plants, the *sabotage* of which could lead to high radiological consequences, and for other *nuclear facilities*.

Requirements for high consequence facilities including nuclear power plants

5.20. *Nuclear material* in an amount which if dispersed could lead to high radiological consequences and a minimum set of equipment, systems or devices needed to prevent high radiological consequences, should be located within one or more *vital areas*, located inside a *protected area*.

5.21. A *protected area* should be located inside a *limited access area*. The *protected area* perimeter should be equipped with a *physical barrier*, intrusion *detection* and assessment to *detect*

unauthorized access. These protection measures should be configured to provide time for assessment of the cause of alarms, and provide adequate delay for an appropriate response, under all operational conditions. Alarms generated by intrusion detection sensors should be promptly and accurately assessed, and appropriate action taken.

5.22. The number of access points into the *protected area* should be kept to the minimum necessary. All points of potential access should be appropriately secured and fitted with alarms.

5.23. Vehicles, persons and packages entering the *protected area* should be subject to search for *detection* and prevention of unauthorized access and of introduction of prohibited items. Instruments for the *detection* of *nuclear material*, metal, and explosives can be used for such searches. Entry of vehicles into the *protected area* should be strictly minimized and limited to designated parking areas.

5.24. Only authorized persons should have access to the *protected area*. Effective access control measures should be taken to ensure the *detection* and prevention of unauthorized access. The number of authorized persons entering the *protected area* should be kept to the minimum necessary. Authorized unescorted access to the *protected area* should be limited to persons whose trustworthiness has been determined. Persons whose trustworthiness has not been determined, such as temporary repair, service or construction workers and visitors, should be escorted by persons authorized for unescorted access.

5.25. The identity of authorized persons entering the *protected area* should be verified. Passes or badges should be issued and visibly displayed inside the *protected area*.

5.26. A *vital area* should provide an additional layer to the *protected area* for detection, access control and delay. *Vital areas* should be appropriately secured and alarmed when unattended.

5.27. *Vital areas* should provide delay against unauthorized access to allow for a timely and appropriate response to an act of *sabotage* consistent with the *design basis threat*. Delay measures should be designed considering both the *insiders'* and external adversaries' capabilities, and should take into account and be balanced for all potential points of intrusion.

5.28. The number of access points to the *vital areas* should be kept to the minimum necessary (ideally only one). All points of potential access should be appropriately secured and fitted with alarms.

5.29. To counter the *insider* threat, whenever persons are present in *vital areas*, provision should be made for timely *detection* of unauthorized action.

5.30. Vehicle barriers should be installed at an appropriate distance from the *vital area* to prevent the penetration of unauthorized land and waterborne vehicles specified in the *design basis threat* that could be used by an adversary for committing a *malicious act*. Attention should be given to providing protection measures against any airborne threat specified in the *design basis threat* for the *operator*.

5.31. Only authorized persons should have access to the *vital area*. Effective access control measures should be taken to ensure the *detection* and prevention of unauthorized access. The number of authorized persons entering the *vital area* should be kept to the minimum necessary. Authorized access to the *vital area* should be limited to persons whose trustworthiness has been determined. In exceptional circumstances and for a limited period, persons whose trustworthiness has not been determined should be provided access only when escorted by persons authorized for unescorted access.

5.32. Private vehicles should be prohibited from accessing *vital areas*.

5.33. Timely *detection* of tampering or interference with *vital area* equipment, systems or devices should be provided. A timely report should be made to the *competent authority* whenever there is reason to suspect that any *malicious activity* has occurred.

5.34. During a shutdown/maintenance period, strict access control to *vital areas* should be maintained. Prior to reactor start-up, searches and testing should be conducted to detect any tampering that may have been committed during shutdown/maintenance.

5.35. Records should be kept of all persons who access *vital areas* or have access to or possession of keys, keycards and/or other systems, including computer systems that control access to *vital areas*.

5.36. A permanently staffed *central alarm station* should be provided for monitoring and assessment of alarms, initiation of response, and communication with the *guards*, *response forces*, and facility management. Information acquired at the *central alarm station* should be stored in a secure manner. The *central alarm station* should normally be located in a *protected area* and protected so that its functions can continue in the presence of a threat, e.g. hardened. Access to the *central alarm station* should be strictly minimized and controlled. Provisions, including redundancy measures, should be in place to ensure that the functions of the *central alarm station* in monitoring and assessment of alarms, initiation of response and communication can continue during an emergency (e.g. backup alarm station).

5.37. Alarm equipment, alarm communication paths and the *central alarm station* should be provided with an uninterruptible power supply and be tamper-protected against unauthorized monitoring, manipulation and falsification.

5.38. Dedicated, redundant, secure and diverse transmission systems for two way voice communication between the *central alarm station* and the *response forces* should be provided for activities involving *detection*, assessment and response. Dedicated two way secure voice communication should be provided between *guards* and the *central alarm station*.

5.39. A 24 hour guarding service and *response forces* should be provided to ensure an adequate and timely response to prevent an adversary from completing an act of *sabotage*. The *central alarm station* personnel and off-site response forces should communicate at scheduled intervals. The *guards* and *response forces* should be trained and adequately equipped for their function in accordance with national laws and regulations.

5.40. The *guards* should conduct random patrols of the protected area. The main functions of the patrols should be to:

- Deter an adversary;
- Detect intrusion;
- Inspect visually the physical protection components;
- Supplement the existing *physical protection measures*;
- Provide an initial response.

5.41. Evaluations, including *performance testing*, of the *physical protection measures* and of the *physical protection system*, including timely response of the *guards* and *response forces*, should be conducted regularly to determine reliability and effectiveness against the *threat*. These should be carried out with full cooperation between the *operator* and *response forces*. *Performance testing* of the *physical protection system* should include appropriate exercises, for example *force-on-force exercises*, to determine if the *response forces* can provide an effective and timely response to prevent *sabotage*. Significant deficiencies and actions taken should be reported as stipulated by the *competent authority*.

5.42. *Contingency plans* should be prepared to effectively counter *malicious acts* and to provide for appropriate response by *guards* or *response forces*. Such plans should also provide for the training of facility personnel in their actions.

Requirements for other nuclear facilities and nuclear material

5.43. *Sabotage* of *nuclear facilities* other than high consequences facilities and of various forms and quantities of other *nuclear material* could also result in radiological consequences to the public. States should determine the level of protection needed against such *sabotage* depending upon the degree of radiological consequences. Measures specified in

paras 5.20–5.42. may be applied in a graded manner as appropriate.

REQUIREMENTS FOR ASSOCIATED MEASURES TO MITIGATE OR MINIMIZE THE RADIOLOGICAL CONSEQUENCES OF SABOTAGE

Scope and boundary

5.44. This section provides recommendations for the State and operator so that they participate in a coordinated manner to respond to an act of *sabotage* to mitigate or minimize radiological consequences. In the case of *sabotage* or attempted *sabotage* which could affect a *nuclear facility*, two kinds of measures should be taken by the appropriate State response organizations and the operator. The *contingency plan* should include measures which focus on preventing further damage, on securing the *nuclear facility* and on protecting emergency equipment and personnel. The emergency plan consists of measures to ensure the mitigation or minimization of the radiological consequences of *sabotage* as well as human errors, equipment failures and natural disasters. These plans should be comprehensive and complementary.

Requirements for the State

5.45. The State should define the roles and responsibilities of appropriate State response organizations and operators to prevent further damage, secure the *nuclear facility* and protect emergency equipment and personnel.

5.46. The State's *contingency plan* should complement the *contingency plan* prepared by the operator.

5.47. The State should ensure that *contingency plans* are established by operators.

5.48. The *contingency plans* of the State and of the operators should include a description of the objectives, policy and concept of operations for the response to *sabotage* or attempted *sabotage*, and of the structure, authorities and responsibilities for a systematic, coordinated and effective response.

5.49. The State should develop arrangements and protocols among appropriate State response organizations and operators, for the coordination of measures for preventing further damage, securing the *nuclear facility* and protecting emergency equipment and personnel. The arrangements should be clearly documented and this documentation should be made available to all relevant organizations.

5.50. The State should ensure that operators and appropriate State response organizations conduct exercises to assess and validate the *contingency plans* prepared by the operators and the State organizations, and also to train the various participants on how to react in such a situation.

5.51. The State should ensure that *contingency plans* are regularly reviewed and updated.

5.52. The State should ensure that joint exercises, which simultaneously test emergency and *contingency plans* and actions, are regularly carried out in order to assess and validate the adequacy of the interfaces and response coordination of emergency and security organizations involved in responding to various scenarios, and should have a method for incorporating lessons learned to improve both management systems.

5.53. The State should ensure that *response forces* are familiarized with the site and *sabotage* targets and have adequate knowledge of radiation protection to ensure that they are fully prepared to conduct necessary response actions, considering their potential impact on safety.

Requirements for the operator

5.54. The operator should establish a *contingency plan*.

5.55. The operator should prepare facility personnel to act in full coordination with *guards*, *response forces*, law enforcement agencies and safety response teams for implementing the *contingency plans*.

5.56. The operator should assess, on detection of a *malicious act*, whether this act could lead to radiological consequences.

5.57. The operator should notify, in a timely manner, the *competent authority*, *response forces* and other relevant State organizations of *sabotage* or attempted *sabotage* as specified in the *contingency plan*.

5.58. Immediately following an act of *sabotage*, the operator should take measures to prevent further damage, secure the *nuclear facility* and protect emergency equipment and personnel.

6. REQUIREMENTS FOR MEASURES AGAINST UNAUTHORIZED REMOVAL AND SABOTAGE OF NUCLEAR MATERIAL DURING TRANSPORT

The challenges associated with protecting *nuclear material* from *unauthorized removal* and *sabotage* during *transport* are unique compared to when it is held at *nuclear facilities*, and thus require a dedicated approach.

REQUIREMENTS FOR PHYSICAL PROTECTION OF NUCLEAR MATERIAL AGAINST UNAUTHORIZED REMOVAL DURING

TRANSPORT

6.1. Levels of protection defined in this section are based on categorization of *nuclear material* for use in the construction of a nuclear explosive device. However, *nuclear material* is radioactive material, which has also to be protected against *unauthorized removal* since it could have significant consequences if dispersed or used otherwise for a malicious purpose. Protection requirements against *unauthorized removal* of *nuclear material* for potential subsequent offsite radiological dispersal are provided in IAEA Nuclear Security Series No. 14, Nuclear Security Recommendations on Radioactive Material and Associated Facilities [1].

6.2. These two sets of requirements for protection against *unauthorized removal* should be considered and implemented in such a manner that the more stringent requirements for physical protection are applied.

6.3. When implementing requirements for protection against *unauthorized removal*, the requirements for the protection against *sabotage* addressed in paras 6.56–6.59 should also be taken into account. Appropriate *physical protection measures* should then be designed based on the more stringent applicable requirements and implemented for both in an integrated manner.

General

6.4. Table 1 in Section 4 is the basis for a *graded approach* to protection against *unauthorized removal* during *transport* of *nuclear material* that could be used in a nuclear explosive device.

6.5. The total amount of *nuclear material* on or in a single *conveyance* should be aggregated to determine a categorization and identify the appropriate protection requirements for the *conveyance*. When different types of *nuclear material* are transported on the same *conveyance*, an appropriate aggregation formula should be used to determine the category of the consignment.

Common requirements for transport of nuclear material

6.6. Physical protection against *unauthorized removal* during *transport* should encompass, as far as operationally practicable in accordance with the graded approach:

(a) Minimizing the total time during which the *nuclear material* remains in *transport*.

(b) Minimizing the number and duration of *nuclear material* transfers, i.e. transfer from one *conveyance* to another, transfer to and from temporary storage and temporary storage while awaiting the arrival of a *conveyance*, etc.

(c) Protecting *nuclear material* during *transport* and in temporary storage in a manner consistent with the category of that *nuclear material*.

(d) Avoiding the use of predictable movement schedules by varying times and routes.

- (e) Requiring predetermination of the trustworthiness of individuals involved during *transport of nuclear material*.
- (f) Limiting advance knowledge of transport information to the minimum number of persons necessary.
- (g) Using a material transport system with passive and/or active *physical protection measures* appropriate for the *threat assessment or design basis threat*.
- (h) Using routes which avoid areas of natural disaster, civil disorder or with a known threat.
- (i) Ensuring that packages and/or *conveyances* are not left unattended for any longer than is absolutely necessary.

6.7. Appropriate measures, consistent with national requirements and using a *graded approach*, should be taken to protect the confidentiality of information relating to *transport operations*, based on a need to know, including detailed information on the schedule and route. Great restraint should be applied in the use of any special markings on *conveyances*, and also in the use of open channels for transmission of messages concerning shipments of *nuclear material*. When a security related message is transmitted, measures such as coding and appropriate routing should be taken to the extent practicable, and care should be exercised in the handling of such information.

6.8. Before commencing an international shipment, the *shipper* should ensure that the arrangements are in accordance with the physical protection regulations of the receiving State and of other States which are transited.

6.9. Procedures should be established to ensure the security of keys to *conveyances* and security locks commensurate with the categorization of the *nuclear material* being transported.

6.10. If the *conveyance* makes an unexpected extended stop, the *physical protection measures* appropriate for that category of material in storage should be applied to the extent possible and practicable. Physical protection of *nuclear material* in storage incidental to *transport* should be at a level appropriate for the category of the *nuclear material* and provide a level of protection consistent with that required in Section 4 for use and storage.

Requirements for Categories I, II and III nuclear material

6.11. In addition to the recommendations in paras 6.4–6.10, the following recommendations apply to Categories I, II and III *nuclear material*.

6.12. The carrier should give the receiver advance notification of the planned shipment specifying the mode of *transport* (road/rail/water/air), the estimated time of arrival of the shipment and the exact point of handover if this is to be done at some intermediate point before the ultimate destination. This advance notification should be supplied in time to enable the receiver to make adequate physical protection arrangements.

6.13. Physical protection during *transport* should include prior agreement among *shipper*, receiver, and carrier, specifying time, place and procedures for transferring physical protection responsibilities.

6.14. Packages containing *nuclear material* should be carried in closed, locked *conveyances*, compartments or freight containers. However, carriage of packages weighing more than 2000 kg that are locked or sealed may be allowed in open vehicles. Packages should be tied down or attached to the vehicle or freight container and should be secured as appropriate.

6.15. Where practicable, locks and seals should be applied to *conveyances*, compartments or freight containers. If locks and/or seals are used, checks should be made before dispatch and during any intermodal transfer of each *nuclear material* consignment to confirm the integrity of the locks and seals on the package, vehicle, compartment or freight container.

6.16. There should be a detailed search of the *conveyance* to ensure that nothing has been tampered with and that nothing has been affixed to the package or conveyance that might compromise the security of the consignment.

6.17. Arrangements should be made to provide sufficient *guards* and/or *response forces* to deal with *nuclear security* events consistent with the category of *nuclear material* being transported and *physical protection measures* should include communication from the *conveyance* capable of summoning appropriate responders.

6.18. The receiver should check the integrity of the packages, and locks and seals when used, and accept the shipment immediately upon arrival. The receiver should notify the *shipper* of the arrival of the shipment immediately or of non-arrival within a reasonable interval after the estimated time of arrival at the destination.

Requirements for Categories I and II nuclear material

6.19. In addition to the recommendations in paras 6.4–6.18, the following recommendations apply to Categories I and II *nuclear material*.

6.20. *Physical protection measures* should include surveillance of the cargo, load compartment or *conveyance*. States are encouraged to use *guards* for such surveillance.

6.21. The receiver should confirm readiness to accept delivery (and handover, if applicable) at the expected time, prior to the commencement of the shipment.

6.22. A transport security plan should be submitted by the *shipper* and/or carrier as appropriate to the *competent authority* for approval. A plan may cover a series of similar movements. This plan should address routing of the shipment, stopping places, destination hand-over arrangements, identification of persons authorized to take delivery, accident procedures, reporting procedures, both routine and emergency, and, as appropriate, *contingency plans*. In choosing the route, the capabilities of the *response forces* should be taken into account. Exercises should be conducted to assess and validate the transport security plan and to train the participants on how to respond to *nuclear security events*.

6.23. Prior to commencing *transport*, the carrier should verify that all *physical protection measures* are in place in accordance with the transport security plan.

6.24. When justified by the State's *threat assessment*, States are encouraged to use armed *guards* for shipments of Category II *nuclear material* to the extent that laws and regulations permit. In those circumstances when *guards* are not armed, compensating measures should be applied.

6.25. *Physical protection measures* should provide sufficient delay in the *conveyance*, freight container and/or package so that *guards* and/or *response forces* have time for an appropriate response.

6.26. The *conveyance* should be searched immediately prior to loading and shipment. Immediately following completion of the search, the *conveyance* should be placed in a secure area or kept under *guard* surveillance pending its loading and shipment for *transport* and unloading.

6.27. Personnel with physical protection responsibilities should be given written instructions that, when appropriate, have been approved by the *competent authority*, detailing their responsibilities during the *transport*.

6.28. Particular consideration should be given to ensuring confidentiality of information relating to transport operations, including dissemination only to persons with a need to know this information.

6.29. *Physical protection measures* should include provision of continuous two way voice communication between the *conveyance*, any *guards* accompanying the shipment, the designated *response forces* and, where appropriate, the *shipper* and/or receiver.

6.30. Arrangements should be made to provide adequately sized *response forces* to deal with *nuclear security events*. The objective should be the arrival of the *response forces* in time to prevent *unauthorized removal*.

6.31. Depending on the mode of *transport*, the consignment should be shipped by:

- Road, under exclusive use conditions; or
- Rail, where operationally practicable, in a freight train in an exclusive use fully enclosed and locked *conveyance*; or
- Water, in a secure compartment or container which is locked and sealed; or
- Air, in an aircraft designated for cargo only and in a secure compartment or container which is locked and sealed.

While *nuclear material* is on board pending departure, provisions should be made for sufficient *access delay* or compensating measures to meet the *threat assessment* or *design basis threat*.

Requirements for Category I nuclear material

6.32. In addition to the recommendations in paras 6.4–6.31, the following recommendations apply to Category I *nuclear material*.

6.33. The approval by the *competent authority* of the transport security plan should be based on a detailed examination of proposed *physical protection measures*, which should provide sufficient delay so that *guards* and/or *response forces* have time to intervene to prevent *unauthorized removal*. The transport security plan should include the route and arrangements for making changes, such as alteration of the route during the shipment, in response to unexpected changes in the physical environment, *threat assessment* and operating conditions.

6.34. A further authorization by the *competent authority* of the shipment should be required just prior to commencing *transport* and should be conditional on a current *threat assessment* and intelligence information and, where appropriate, on a detailed route surveillance to observe the current environment. The consent to a transport operation can include specific limitations and conditions related to the particular circumstances.

6.35. *Guards*, appropriately equipped and trained, should accompany each shipment to protect the *nuclear material*, including before and during loading and unloading operations, to conduct surveillance of the route and to initiate an appropriate response. Continuous, effective surveillance of the packages or locked cargo hold or compartment holding the packages should be maintained by the *guard* at all times, especially when the *conveyance* is not in motion. States are encouraged to use armed *guards* to the extent that laws and regulations permit. When *guards* are not armed, compensating measures should be applied, such as adding delay barriers to the *conveyance* exterior structure and/or interior cargo area.

6.36. When locked or sealed packages weighing more than 2000 kg are transported in open vehicles, enhanced *physical protection measures* should be applied, such as additional *guards*. The package should be tied down or attached to the *conveyance* or freight container with multiple locking mechanisms that require to be unlocked by two different keys held by two different authorized persons.

6.37. There should be a *transport control centre* for the purpose of keeping track of the current position and security status of the shipment of *nuclear material*, alerting *response forces* in case of an attack and maintaining continuous secure two way voice communication with the shipment and the *response forces*. The *transport control centre* should be protected so that its function can continue in the presence of the *threat*. While the shipment is in progress, the *transport control centre* should be staffed by qualified *shipper* or State designees whose trustworthiness has been predetermined.

6.38. Continuous two way communication systems between the *conveyance*, *transport control centre*, *guards* accompanying the shipment, the designated *response forces*, and where appropriate, the *shipper* and/or receiver should be redundant, diverse and secure.

6.39. The *guards* or *conveyance* crew should be instructed to report frequently and upon arrival at the destination, each overnight stopping place and place of handover of the shipment by secure two way voice communications to the *transport control centre*.

6.40. For shipment by road, designated *conveyance(s)* should

be used exclusively for each consignment and should preferably be specially designed to resist attack and equipped with a *conveyance* disabling device. Each *conveyance* should carry a *guard* or crew member in addition to the driver. Each *conveyance* should be accompanied by at least one vehicle with *guards* to conduct a surveillance of the route for any threat indicators and to protect the *conveyance* and initiate an appropriate response.

6.41. During shipment by rail, accompanying *guards* should travel close to the *conveyance* to have proper effective surveillance.

6.42. Shipment by water should be carried out on a dedicated transport vessel.

6.43. Shipment by air should be by aircraft designated for cargo only and on which the *nuclear material* is its sole cargo.

REQUIREMENTS FOR MEASURES TO LOCATE AND RECOVER NUCLEAR MATERIAL MISSING OR STOLEN DURING TRANSPORT

Scope and boundary

6.44. An objective of the State's *physical protection regime*, addressed in this section, is to ensure the implementation of rapid and comprehensive measures to locate and recover missing or stolen *nuclear material*. Measures to locate and recover *nuclear material* after the reporting of it as lost, missing or stolen to a *competent authority* are addressed in IAEA Nuclear Security Series No. 15, Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control [2].

Requirements for the State

6.45. The State should ensure that its *physical protection regime* includes rapid response and comprehensive measures to locate and recover missing or stolen *nuclear material* during *transport*.

6.46. The State should define the roles and responsibilities of appropriate State response organizations, carriers and/or other relevant entities to locate and to recover any missing or stolen *nuclear material* that occurs during *transport*.

6.47. The State should ensure that *contingency plans* — including interfaces with safety, as appropriate — are established by carriers and/or other relevant entities to locate and to recover any missing or stolen *nuclear material* that occurs during *transport*.

6.48. The responsible State organizations should develop *contingency plans* for the rapid location and recovery of *nuclear material* which has been declared missing or stolen during *transport*.

6.49. For the coordination of location and recovery operations, the State should develop arrangements and protocols between appropriate State response organizations, carriers and/or other relevant entities. The arrangements should be clearly documented and this documentation should be made available to all relevant organizations.

6.50. The State should ensure that appropriate State response organizations, carriers and/or other relevant entities conduct exercises to assess and validate the *contingency plans* and also to train the various participants how to react in such a situation.

6.51. The State should ensure that *contingency plans* for location and recovery operations are regularly reviewed and updated.

Requirements for the carrier

The recommendations for the carrier are organized by the process for the discovery, location, and reporting of lost or stolen *nuclear material*.

6.52. The carrier should be alert during *transport* for any indications that packages have been removed from the *conveyance* or tampered with and should verify during delivery that no packages are missing or have been tampered with.

6.53. The carrier should take immediate action to determine if missing packages are misplaced but still under its control.

6.54. If packages are determined to be missing or have been tampered with, the carrier should immediately report this to relevant authorities and the *shipper*.

6.55. The carrier should provide any requested assistance to the appropriate State organizations to locate and recover *nuclear material* and should cooperate during subsequent investigations and prosecution.

REQUIREMENTS FOR PHYSICAL PROTECTION OF NUCLEAR MATERIAL AGAINST SABOTAGE DURING TRANSPORT

6.56. The recommendations for *physical protection measures* in this section are made on the basis of the potential radiological consequences resulting from an act of *sabotage*. The categorization specified in Section 4 is based on the attractiveness of material for the potential construction of a nuclear explosive device and cannot be directly applied to protection against *sabotage*. The recommendations should be used by the State, *shippers*, carriers, receivers, *guards* and *response forces* to help ensure protection of *nuclear material* during transport against *sabotage*.

6.57. When implementing requirements for protection against *sabotage*, the requirements for the protection against *unauthorized removal* addressed in paras 6.1–6.43 should also be taken into account. Appropriate *physical protection measures* should then be designed based on the more stringent applicable requirements and implemented for both in an integrated manner.

6.58. In accordance with the fundamental principle of the *graded approach* to physical protection, the State should define protection requirements that correspond to the level of potential radiological consequences. The safety features of the design of the *transport* package, container and *conveyance* should be taken into account when deciding what additional *physical protection measures* are needed to protect the material against *sabotage*.

6.59. If the current or potential *threat* warrants additional *physical protection measures* to protect against *sabotage*, consideration should be given to:

- Postponing the shipment;
- Rerouting the shipment to avoid high threat areas;
- Enhancing the robustness of the package or the *conveyance*;
- Detailed route surveillance to observe the current environment;
- Providing (additional) *guards*.

REQUIREMENTS FOR ASSOCIATED MEASURES TO MITIGATE OR MINIMIZE THE RADIOLOGICAL CONSEQUENCES OF SABOTAGE DURING TRANSPORT

Scope and boundary

6.60. An objective of the State's *physical protection regime* addressed in this section is to ensure the implementation of rapid and comprehensive measures to mitigate or minimize the radiological consequences of *sabotage*, taking into account emergency plans.

Requirements for the State

6.61. The State should define the roles and responsibilities of appropriate State response organizations, carriers and/or other relevant entities to prevent further damage, secure the nuclear *transport* and protect emergency personnel.

6.62. The State should establish a *contingency plan* for transport of *nuclear material*. This plan should complement the *contingency plan* prepared by the carrier and/or other relevant entities.

6.63. The State should ensure that *contingency plans* — including interfaces with safety, as appropriate — are established by carriers and/or other relevant entities.

6.64. The *contingency plans* for *transport of nuclear material* of the State, carriers and/or other relevant entities should include a

description of the objectives, policy and concept of operations for the response to *sabotage* or attempted *sabotage*, and of the structure, authorities and responsibilities for a systematic, coordinated and effective response.

6.65. The State should develop arrangements and protocols between appropriate State response organizations, carriers and/or other relevant entities for the coordination of measures for preventing further damage, securing the nuclear *transport* and protecting emergency personnel. The arrangements should be clearly documented and this documentation should be made available to all relevant organizations.

6.66. The State should ensure that appropriate State response organizations, carriers and/or other relevant entities conduct exercises to assess and validate the *contingency plans* for *transport of nuclear material* and also to train the various participants on how to react in such a situation.

6.67. The State should ensure that *contingency plans* for *transport of nuclear material* are regularly reviewed and updated.

6.68. The State should ensure that joint exercises, which simultaneously test emergency and *contingency plans* and actions for *transport of nuclear material* are regularly carried out in order to assess and validate the adequacy of the interfaces and response coordination of emergency and security organizations involved in responding to various scenarios, and should have a method for incorporating lessons learned to improve both management systems.

6.69. The State should ensure that response forces are familiarized with typical *transport* operations and *sabotage* targets and have adequate knowledge of radiation protection to ensure that they are fully prepared to conduct necessary response actions, considering their potential impact on safety.

Requirements for the carrier

6.70. The carrier should prepare transport personnel to act in full coordination with *guards*, *response forces* and law enforcement agencies for implementing the *contingency plan*.

6.71. The *transport control centre* or carrier's management should be informed as soon as an attempt or an act of *sabotage* is detected.

6.72. The carrier should notify, in a timely manner, the *shipper*, the *competent authority*, *response forces* and other relevant State organizations of *sabotage* or attempted *sabotage* as specified in the *contingency plan*.

6.73. Immediately following an act of *sabotage*, the carrier and/or *guards* should take measures to secure the *transport* and minimize the consequences of the act.

DEFINITIONS

Terms used in this publication are defined below and are italicized in the text.

access delay. The element of a physical protection system designed to increase adversary penetration time for entry into and/or exit from the nuclear facility or transport.

central alarm station. An installation which provides for the complete and continuous alarm monitoring, assessment and communication with guards, facility management and response forces.

competent authority. Governmental organization(s) or institution(s) that has(have) been designated by a State to carry out one or more nuclear security functions.

contingency plan. Predefined sets of actions for response to unauthorized acts indicative of attempted unauthorized removal or sabotage, including threats thereof, designed to effectively counter such acts.

conveyance. For transport (a) by road or rail: any vehicle used for carriage of nuclear material cargo; (b) by water: any seagoing vessel or inland waterway craft, or any hold, compartment, or defined deck area of a seagoing vessel or

inland waterway craft used for carriage of nuclear material cargo; and (c) by air: any aircraft used for carriage of nuclear material cargo.

defence in depth. The combination of multiple layers of systems and measures that have to be overcome or circumvented before physical protection is compromised.

design basis threat. The attributes and characteristics of potential insider and/or external adversaries, who might attempt unauthorized removal or sabotage, against which a physical protection system is designed and evaluated.

detection. A process in a physical protection system that begins with sensing a potentially malicious or otherwise unauthorized act and that is completed with the assessment of the cause of the alarm.

force-on-force exercise. A performance test of the physical protection system that uses designated trained personnel in the role of an adversary force to simulate an attack consistent with the threat or the design basis threat.

graded approach. The application of physical protection measures proportional to the potential consequences of a malicious act.

guard. A person who is entrusted with responsibility for patrolling, monitoring, assessing, escorting individuals or transport, controlling access and/or providing initial response.

inner area. An area with additional protection measures inside a protected area, where Category I nuclear material is used and/or stored.

insider. One or more individuals with authorized access to nuclear facilities or nuclear material in transport who could attempt unauthorized removal or sabotage, or who could aid an external adversary to do so.

limited access area. Designated area containing a nuclear facility and nuclear material to which access is limited and controlled for physical protection purposes.

malicious act. An act or attempt of unauthorized removal or sabotage.

nuclear facility. A facility (including associated buildings and equipment) in which nuclear material is produced, processed, used, handled, stored or disposed of and for which a specific licence is required.

nuclear material. Material listed in Table 1, in Section 4 of this publication, including the material listed in its footnotes.

nuclear security culture. The assembly of characteristics, attitudes and behaviours of individuals, organizations and institutions which serves as means to support, enhance and sustain nuclear security.

nuclear security event. An event that is assessed as having implications for physical protection.

operator. Any person, organization, or government entity licensed or authorized to undertake the operation of a nuclear facility.

performance testing. Testing of the physical protection measures and the physical protection system to determine whether or not they are implemented as designed; adequate for the proposed natural, industrial and threat environments; and in compliance with established performance requirements.

physical barrier. A fence, wall or similar impediment which provides access delay and complements access control.

physical protection measures. The personnel, procedures, and equipment that constitute a physical protection system.

physical protection regime. A State's regime including:

—The legislative and regulatory framework governing the physical protection of nuclear material and nuclear facilities;

—The institutions and organizations within the State responsible for ensuring implementation of the legislative and regulatory framework;

—Facility and transport physical protection systems.

physical protection system. An integrated set of physical protection measures intended to prevent the completion of a malicious act.

protected area. Area inside a limited access area containing Category I or II nuclear material and/or sabotage targets surrounded by a physical barrier with additional physical protection measures.

response forces. Persons, on-site or off-site, who are armed and appropriately equipped and trained to counter an attempted unauthorized removal or an act of sabotage.

sabotage. Any deliberate act directed against a nuclear facility or nuclear material in use, storage or transport which could directly or indirectly endanger the health and safety of personnel, the public or the environment by exposure to radiation or release of radioactive substances.

shipper. Any person, organization or government that prepares or offers a consignment of nuclear material for transport (i.e. the consignor).

stand-off attack. An attack, executed at a distance from the target nuclear facility or transport, which does not require adversary hands-on access to the target, or require the adversary to overcome the physical protection system.

system for nuclear material accountability and control. An integrated set of measures designed to provide information on, control of, and assurance of the presence of nuclear material, including those systems necessary to establish and track nuclear material inventories, control access to and detect loss or diversion of nuclear material, and ensure the integrity of those systems and measures.

threat. A person or group of persons with motivation, intention and capability to commit a malicious act.

threat assessment. An evaluation of the threats — based on available intelligence, law enforcement, and open source information — that describes the motivations, intentions, and capabilities of these threats.

transport. International or domestic carriage of nuclear material by any means of transportation, beginning with the departure from a nuclear facility of the shipper and ending with the arrival at a nuclear facility of the receiver.

transport control centre. A facility which provides for the continuous monitoring of a transport conveyance location and security status and for communication with the transport conveyance, shipper/receiver, carrier and, when appropriate, its guards and the response forces.

two person rule. A procedure that requires at least two authorized and knowledgeable persons to be present to verify that activities involving nuclear material and nuclear facilities are authorized in order to detect access or actions that are unauthorized.

unacceptable radiological consequences. A level of radiological consequences, established by the State, above which the implementation of physical protection measures is warranted.

unauthorized removal. The theft or other unlawful taking of nuclear material.

vital area. Area inside a protected area containing equipment, systems or devices, or nuclear material, the sabotage of which could directly or indirectly lead to high radiological consequences.

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Guidelines for IAEA International Physical Protection Advisory Service (IPPAS)

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FOREWORD

The IAEA International Physical Protection Advisory Service (IPPAS) provides advice to Member States to assist them in strengthening the effectiveness of their national physical protection system whilst recognizing that the ultimate responsibility for physical protection is that of the Member State. The IPPAS programme is not restricted to any particular group of Member States, whether developing or industrialized. It is available to all countries with nuclear materials and facilities.

The basic concepts, purposes and functions of physical protection are provided in INFCIRC/225, The Physical Protection of Nuclear Material and Nuclear Facilities as amended from time to time and The Convention on the Physical Protection of Nuclear Material (INFCIRC/274/Rev.1). The guidance given in INFCIRC/225 recognizes that the implementation of these requirements will vary from country to country depending on their existing constitutional, legal and administrative systems; the assessment of the threat for the potential theft of nuclear material or sabotage of nuclear facilities; the technical skills and the professional and financial resources available to the competent authority; and social customs and cultural traditions.

IPPAS missions compare (insofar as this is possible) the procedures and practices in a Member State with the obligations specified under INFCIRC/274/Rev.1, the existing international consensus guidelines (INFCIRC/225) and equivalent good practices elsewhere. These IPPAS guidelines provide overall guidance for the experts to ensure the consistency and comprehensiveness of the mission and have been prepared by the IAEA to complement the expertise of the IPPAS team members. These guidelines also provide suitable guidance to the host country in preparing for and receiving such missions. IPPAS missions are performance oriented in that they accept different approaches to the implementation of a national physical protection system. Recommendations are made on items which could directly affect physical protection systems, whereas suggestions made might only indirectly contribute to improving the physical protection system. Commendable good practices identified may be communicated to other Member States for long term improvement.

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PART I: IPPAS MISSIONS

I.1 Introduction

It will be readily apparent that, with the reasonable and necessary variations in physical protection practices between different countries, there cannot be an absolute measure of the adequacy and effectiveness of the practices in any one country.

Typically differences will occur between Member States because of differences in perceived threats. Therefore, there will be differences in the implementation of international guidance contained in The Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225) [1] and obligations required in The Convention on the Physical Protection of Nuclear Material (INFCIRC/274/Rev.1) [2].

For these reasons, and because each Member State is ultimately responsible for the physical protection of nuclear materials and nuclear facilities on its own territory or on board a ship or aircraft under its jurisdiction, it is neither realistic nor proper to expect any international group to review and pass absolute judgement on the national physical protection system.

What can be achieved, however, is for an International Physical Protection Advisory Service (IPPAS) expert team to compare, insofar as this is possible, the implementation of the obligations under the Physical Protection Convention and under the existing international consensus guidelines and equivalent good practices elsewhere. The IPPAS team can, and should, be judgmental in evaluating the national physical protection system with respect to these guidelines and practices; it can also provide recommendations and suggestions for improvement and acknowledge good practice. For this comparison the team, as well as considering the arrangements of the competent authority at its headquarters, should visit a nuclear site or observe nuclear material in transit to look at the implementation of physical protection requirements.

International guidelines referred to in this publication are INFCIRC/225 and the obligations specified in INFCIRC/274/Rev 1.

An IPPAS review of the implementation of a State system of physical protection is based on the recommendations contained in INFCIRC/225 and, as supplemented in IAEA-TECDOC-967, Guidance and Considerations for Implementation of INFCIRC/225/Rev.3, The Physical Protection of Nuclear Material [3], plus the obligations stated in the Convention on the Physical Protection of Nuclear Material. In some instances the host government may additionally request the team to concentrate on specific details or areas of the review. If this occurs then it will be clearly noted in the final mission report.

I.2 Purpose of the guidelines

This publication has been prepared to provide a basic structure and common reference for all IPPAS missions. As such, it is addressed, principally, to the team members of IPPAS missions but it will also provide guidance to a host government receiving a mission.

This publication is intended to help the experts to formulate their review in the light of their own experience. It is not all inclusive and should not limit the experts' investigations, but is better considered as illustrating the requirements for an adequate review.

I.3 Objectives

The key objectives of an IPPAS mission are to enhance the national physical protection system by:

- Providing assistance to national competent authorities on how to translate the INFCIRC/225 recommendations into specific requirements for the State system for the physical protection of nuclear facilities and nuclear materials in storage, transport and use.
- Providing assistance to facility operators on the various methods by which INFCIRC/225 recommendations and best practices can be satisfied;
- Providing key staff of the national competent authority and facility operators with an opportunity to discuss their practices with experts who have experience of other practices in the same field;
- Recognizing good practices identified in the course of the mission; and
- Providing experts and observers from Member States with opportunities to broaden their experience and knowledge of their own field.

The IPPAS is intended to be a review of the national physical protection system conducted by a team of international experts who will also use their experience and guidance to suggest the improvement of that system. Judgements are made on the basis of the combined expertise of the international team. The mission is therefore not a regulatory inspection or an audit against set codes and standards. Instead, it is a comparison (insofar as this is possible) of the existing practices of a country with the obligations under INFCIRC/274/Rev.1, existing international consensus guidelines (INFCIRC/225) and an exchange of experiences and equivalent good practices aimed at strengthening the organization and the procedures and practices being followed.

I.4 Protocol

An IPPAS mission will only be initiated after the IAEA has been approached formally by a Member State at the appropriate governmental level.

The mission will be performed by a group of experts from various national authorities selected by the IAEA, with the agreement of the host government. They should have both broad knowledge and long experience in the field.

The mission report will be confidential unless the country specifically states otherwise. The experts constituting the team will protect copies of the report and any information obtained and should be treated as Safeguards Confidential [4]. In addition, the disclosure of sensitive information to the IPPAS team is at the discretion of the host government.

The decision to implement any recommendations of the report will lie entirely with the relevant authorities of the country concerned.

I.5 Methodology

I.5.1 Preparation

On receipt of a request for an IPPAS mission, the IAEA will designate a Technical Officer who will be responsible for:

- Co-ordinating the preparatory work and making the necessary arrangements to conduct an IPPAS mission;
- Establishing liaison contacts with the appropriate counterparts of the host country who will be the primary contact with the expert(s) during the mission;
- In conjunction with the host country, designating a national physical protection expert to be the team leader for the IPPAS mission; and
- In conjunction with the team leader, arranging for a preparatory meeting with the host country.

Prior to the preparatory meeting with the host country, the Technical Officer should convene a meeting involving various interested organizations within the IAEA (e.g., TCPA, NSRW, ADLG, ADEX) in order to harmonize the IAEA's approach to the proposed mission and review existing information related to the host country's legislation, infrastructure physical protection activities and illicit trafficking programme.

A preparatory meeting should be held in the host country to allow senior management and other organizations involved to participate. The meeting will consider:

- the main features of the IPPAS programme;
- preparation for the mission, including a list of the documents required for the mission;
- preparation of the advance information package;
- logistic support required;
- preparation, review and confidentiality of the IPPAS report and technical notes; and
- the identification and scheduling of all persons and organizations to be interviewed.

I.5.2 Team composition

The team will comprise a leader and three or more experts in the field of physical protection. An observer may be proposed by the IAEA for consideration by the host country. It is expected that such missions would take 10 days to two weeks.

The IAEA will request experts to serve on the team from appropriate national authorities as agreed in the preparatory meeting. IPPAS team members are selected by the IAEA so as to ensure that a variety of national approaches to regulation and implementation is represented. Each of the experts is likely to have, in addition to a particular area of expertise, knowledge of other national approaches and other relevant areas. Coupling this knowledge with the international guidelines allows the best practices to be identified.

I.5.3 IPPAS team leader

The team leader will retain overall responsibility for:

- Liaison with the government counterparts;
- Co-ordination of the IPPAS team;
- Participating in the preparatory, entry and exit meetings;
- Supervising the review, including conducting daily team meetings, ensuring that schedules are met, informing government officials, resolving issues requiring decision and preparing for the exit meeting;
- Co-ordinating the preparation of all technical notes;
- Producing the final IPPAS report.

I.5.4 The review

The IPPAS team uses all or some of the following to acquire the information needed to develop their conclusions and recommendations as set out in the experts' technical notes. These are:

- a review of written material;
- interviews with personnel; and
- direct observation of organization, practices and systems in place for the government and at a nuclear site or during transport of nuclear material.

Experts are expected to cover all aspects of physical protection to the extent necessary to be able to make an informed judgement in response to the request for assistance. Matters of concern should be investigated to the extent required to document the concerns accurately in

the experts' technical notes and in sufficient detail to be readily understandable. Recommendations and suggestions should be formulated on the basis of the review. Similarly, good practices encountered in the review should be documented for the benefit of other Member States and described in the technical notes in sufficient detail as to be readily understandable.

1.5.4.1. Documents

The basis for any review of physical protection requirements will consist of the IPPAS experts' reviews of (a) national legislation, (b) competent authority organization and procedures, (c) regulations and guides and (d) facility and transport plans and procedures, as appropriate.

Written material of general interest to the expert team that should be provided prior to the review is listed in Section I-6. Specific guidance to assist the experts is included as supplementary guidance in Part II.

1.5.4.2. Interviews

After consideration of the relevant written material, the interviews with personnel can then be used to:

- Obtain additional information;
- Review issues arising out of the previous actions or briefings;
- Form a judgement of the arrangements, duties and responsibilities of the competent authority;
- Determine whether the regulatory and administrative arrangements and physical protection measures meet established international guidelines and consensus;
- Elicit individual opinions;
- Form judgement of knowledge base, training and resources of the organization;
- Examine the relationship between the competent authority and the facility operator, in particular how the competent authority regulates and assesses the way the facility is operated; and
- Support, confirm or disabuse observations made during the onsite observation of measures in place.

The interviews will also provide an opportunity for important information to be exchanged between experts and their counterparts. An interview should be a give and take discussion and not an interrogation of the counterparts by the experts. Properly conducted, these interviews are a most important part of the IPPAS mission.

1.5.4.3. Direct observation

Direct observation of the implementation of physical protection measures during transport or at a facility should be an important aspect of the review process. A substantial part of the review period should be devoted to practices in use. The observation of work should cover physical protection practices, use of procedures, site plans and instructions, regular and specific reporting and quality control measures in use, and should include a review of management controls in place.

On the basis of the interviews and observations, the experts can then if necessary modify their preliminary views to form a judgement of performance and effectiveness. It may be that more than one iteration through document review, interview and observation will be necessary in order to form a judgement.

1.5.5 Reporting

The IPPAS review compares observed practices with existing international consensus guidelines and equivalent good practices elsewhere. The review should:

- Assess national practices in comparison to those described in INFCIRC/225 and INFCIRC/274/Rev.1;
- Offer proposals for change, when appropriate;
- Note that any changes to national practices are at the discretion of the authorities of the Member State concerned; and
- Consider how effectively laws, procedures, etc., are implemented in practice.

The comparisons may result in recommendations or suggestions or the identification of good practices in accordance with the following definitions:

Recommendation: A recommendation is advice on how improvements can be made in the areas that have been reviewed and discussed as already described. Such advice is based on generally accepted international practices and should deal with the root causes rather than the symptoms of the concerns raised. It can be, but need not necessarily be, an indication of shortcomings in the State system of physical protection. Recommendations should be specific, realistic and designed to result in tangible improvements.

Suggestion: A suggestion either is an additional proposal in conjunction with a recommendation or may stand on its own following a discussion of the associated background. It may indirectly contribute to improvements in the national physical protection system, to indicate useful expansions of existing programmes and to point out possibly better alternatives to current work. In general, it should stimulate the competent authority's and the operator's management and staff to consider ways and means of enhancing performance.

Good practice: A good practice is an indication of an outstanding organization, arrangement, programme or performance and more than just the fulfilment of current requirements or expectations. It should be worth bringing to the attention of others as a model in the general drive for excellence.

1.5.5.1. Technical notes

During the course of the review, individual team members will write detailed technical notes on their observations and conclusions on the area as assigned to them, including any recommendations, suggestions or good practices. These technical notes are then the subject of peer review by all team members. The recommendations and suggestions will be discussed with the competent authority to obtain general agreement before finalizing the technical notes. These findings form the basis of oral presentations at the exit meeting. One or more copies of the technical notes are given to the senior management prior to the exit meeting.

The technical notes are the "field notes" of the individual experts and are considered restricted documents by the IAEA.

1.5.5.2. The IPPAS mission report

Guidelines for drafting a mission report are presented in Part III.

On completion of the review, the team leader will prepare a draft IPPAS report. The main body of the report will be comprised of the technical notes produced during the mission and edited by the team leader. The team leader will summarize the team's main observations and conclusions from comparisons with generally accepted international practices, including all recommendations, suggestions and good practices. The team leader will then pass the draft report to the team for final comment before submitting it to the IAEA within three months.

Appropriate IAEA staff will review the draft report prior to submission to the competent authority of the host country. The competent authority and the others involved in the review will be given the opportunity of offering comments before the text is finalized. Any comments received will be discussed by the IAEA with the team leader before the final published report is submitted through official channels to the host country concerned. The IAEA restricts initial distribution to the authorities concerned, the contributors to the report and responsible IAEA staff. Any further distribution will be at the discretion of the Host Country. Modifications to these report preparation procedures, as appropriate, can be considered at the preparatory meeting. At all times the technical notes, draft reports and final report will be treated as Safeguards Confidential [4] by team members and the IAEA. Special care will be taken by team members when circulating draft reports for comments.

I.6 Advance reference material

Relevant documents discussed at the preparatory meeting should preferably be submitted in English. If necessary the IAEA may translate pertinent documents into English. In order to save time during the mission and allow IPPAS team members to obtain a good understanding of the organisation, authorities and its legal basis, these documents should be provided to the IAEA for transmittal to IPPAS team members at least two months prior to the team's visit.

- a. National legislation:
 - Law(s) governing physical protection of nuclear material and nuclear facilities;
 - Synopsis of the responsibilities and structure of the various government organizations (specifying relevant departments) that deal with the physical protection of nuclear materials and nuclear facilities and how they interrelate; and
 - Regulations on the physical protection of nuclear material and nuclear facilities.
- b. Competent authority organization and procedures:
 - Legal status and responsibilities assigned by law to the competent authority;
 - Objectives of the competent authority and how it maintains its independence;
 - Structure, organization and staffing of the competent authority;
 - Description of the licensing procedures, where applicable;
 - Description of the process for resolving safety and security conflicts;
 - Procedures for assessment and review of technical submissions;
 - Inspection practices;
 - Enforcement procedures;
 - A typical licence where it includes physical protection requirements; and
 - List of applicable codes and standards.
- c. Facility plans, information and procedures

I.7 Support facilities

Prior to the IPPAS mission, as part of the discussions at the preparatory meeting, the IAEA and the team leader will make arrangements with the host country being visited to ensure the provision of necessary support facilities. All reviews are conducted in English and the host country should provide any necessary interpretation to enable the team members to do their work. At all times, there should be at least one meeting room at the disposal of the team, of sufficient size to enable them to work and to hold discussions in reasonable privacy. The room should be equipped with electrical power, since each team member will be equipped with a laptop computer. Computer printers and copiers should also be readily available.

I.8 Follow-up

Since the implementation of physical protection systems is entirely a national responsibility, the possible upgrade of these systems as well as the maintenance of the upgraded systems is a responsibility of the State. The IAEA is in a position to give advice on the options available to carry out the recommendations and suggestions in order to improve the national physical protection system and nuclear facilities. If national authorities would like to discuss these options and the availability of possible support to improve their national physical protection system, the IAEA would assist them in that effort.

PART II: SUPPLEMENTARY GUIDANCE

This supplementary guidance is intended to assist members of an IPPAS team to identify and acquire the information they need to develop and produce satisfactory technical notes. The reference document on which the reviews should be based is INFCIRC/225 (supplemented by IAEA-TECDOC-967 and INFCIRC/274/Rev.1).

There may be areas where review questions infringe on matters which are nationally sensitive (e.g., threat data). It is not necessary that the IPPAS team have detailed information on such matters, but merely to ascertain that they are addressed.

Each review area is subdivided into "Objectives", "Documentation" and "Review points/specimen questions". The documentation lists the relevant preliminary background information that the IAEA will have requested from the Member State prior to the mission and further documentary information (which may not be required in English translation) that should be made available during the course of the mission. The review points/specimen questions are intended only to act as pointers; they should not be taken as all-encompassing or definitive, and must not be considered as a constraint on the reviewer, who should use judgement regarding their usefulness/applicability in any particular Member State.

This guidance is intended to promote thought rather than to be prescriptive and should be used to encourage self-examination on the part of the competent authority, the licensee and their staff; the review points/specimen questions should not be used as a Yes/No checklist.

Supplementary IPPAS guidance have been developed in the following areas:

- Governmental organization and pertinent nuclear physical protection legislation
- Role and responsibility of the competent authority
- Regulations and guidance
- Licensing procedures
- Integration and participation of other organizations
- Facility and nuclear transport implementation of physical protection
- Inspection and enforcement procedures (including sanctions).

II-1. Governmental organization and pertinent nuclear physical protection legislation

These are the fundamental bases on which the responsibility for the establishment, implementation and maintenance of physical protection of nuclear material and nuclear facilities rest within the Member State. Governments need to discharge their responsibilities to regulate the physical protection of nuclear material in order to protect nuclear material from theft, and site personnel, the public and the environment from undue radiological risk as a result inter alia, of an unauthorized use of nuclear

material and sabotage. The Member State therefore needs to have an adequate and supportive governmental organization and legislation. The legislation should provide for a competent authority, which must have sufficient staff, powers and funding to perform its duties and the freedom to do so without undue interference. The government aim at improving the physical protection of nuclear material while in international transport and seek to minimize any impediments to such exchanges. In addition, the State should establish mechanisms to provide for the co-operation for the recovery and protection of stolen nuclear material.

In order to allow time for a comprehensive consideration of these fundamental issues, the background information necessary to enable team members to begin to formulate views on this area will need to be provided in advance by the Member State.

II-1.1. Objectives

The State should establish (e.g., through the enactment of national legislation) a system for the physical protection of nuclear material and facilities within which the physical protection competent authority is established and can operate effectively and, inter alia, has adequate powers and sufficient funds for its activities, and can pursue its regulatory task without undue interference.

The Member State should ensure an adequate hierarchy of authority and responsibility to enable the competent authority to fulfil its physical protection functions. In particular, the competent authority should be separated in the governmental organization from the bodies responsible for developing and promoting the use of nuclear energy or operating nuclear installations.

II-1.2. Documentation

- Primary legislation: laws enacted by the State legislative body (e.g., the congress/parliament/local legislatures and ordinances);
- Secondary legislation, subsidiary/lower tier laws (e.g. legislative regulations issued by the government or administrative agency/body pursuant to primary legislation);
- Conditions included in licences, etc., issued by the competent authority;
- Description of the constitutional and legal system of the Member State;
- Description of all the government ministries or departments involved in physical protection, their responsibilities and how they interrelate, e.g., overall co-ordination mechanisms.

II-1.3. Review points/specimen questions

- a. What are the numbers and types of facilities and/or activities that the Member State is operating or planning to operate in the following areas:
 - i. Nuclear power plants;
 - ii. Research reactors, experimental reactors and critical assemblies;
 - iii. Fuel processing and manufacturing plants;
 - iv. Fuel reprocessing plants;
 - v. Waste management and spent fuel storage facilities;
 - vi. Transportation of nuclear materials;
 - vii. Any other facility associated with civil nuclear energy;
 - viii. Other nuclear facilities being planned?
- b. What is the principal legislation (laws, ordinances, decrees or other legally binding provisions) which establish the State physical protection system? Is this body of legislation

satisfactory and does it require appropriate administrative and technical measures for the physical protection of nuclear material and nuclear facilities as a prerequisite for obtaining a licence?

- c. Describe how the current legislation requires the establishment of a competent authority or bodies with responsibilities for comprehensive governmental regulation of all aspects of physical protection of nuclear material and nuclear facilities.
- d. Provide a diagram showing the governmental organization(s) for the oversight of the facility operators program of physical protection. It should make clear the reporting lines of the various authorities or bodies within the legislative framework. It would be helpful to distinguish between direct lines of control and lines which show where advice is given and/or received.
- e. Does the current legislation require the competent authority to issue physical protection secondary legislation? If not the competent authority, then who does?
- f. Are there any undue impediments to the necessary amendment of secondary legislation?
- g. Does the current legislation require the preparation of periodic reports on the physical protection of nuclear facilities, and if so, by whom? If yes, to whom are these reports addressed?
- h. Does the legislation make compliance with the States physical protection legislation a prerequisite for nuclear activities to be licenced?

II-2. Role and Responsibility of the competent authority

The primary responsibility of the competent authority is to ensure that nuclear material is protected, inter alia, from theft and that site personnel, the public and the environment are protected from possible injury arising from the unauthorized removal of nuclear material or the consequences arising from acts of sabotage. To fulfil its responsibilities the competent authority needs to have sufficient powers:

- To have a clearly defined legal status and independence from the applicant(s)/licensee(s): to have enough authority to enable it to perform its responsibilities and functions effectively.
- To establish a system to define acceptable levels of physical protection; to monitor the licensees to ensure that they fulfil their physical protection responsibilities; to reassess physical protection levels and ensure that the licensees provide appropriate levels of physical protection.
- To establish clear regulatory objectives, and to understand how these are achieved and how they compare with international standards and good practices. The competent authority will also need to establish a system for effective interaction, liaison and co-operation system with other nuclear regulatory bodies within and outside of the State and with international bodies and organizations.

II-2.1 Objectives

All staff of the competent authority should clearly understand the legal authority underpinning their activities, and how this governs their activities in planning, assessing, licensing, inspecting, enforcing, etc. In exercising their authority in matters of physical protection, all staff of the competent authority should understand their organization's regulatory role and objectives, how these are achieved and how they compare with international standards and good practices.

The competent authority should establish any necessary arrangements for co-ordination with other regulatory organizations and those responsible for national security, response force co-ordination, and other affiliated agencies to ensure an integrated approach to physical protection.

II-2.2. Documentation

- Description of the competent authority's legal status, responsibilities and its objectives as defined by law; and
- Description of how the competent authority co-ordinates, liaises with and relates to each of the other government ministries, departments or other organizations involved with physical protection.

II-2.3. Review points/specimen questions

- a. What are the statutory responsibilities of the competent authority?
- b. Is the statutory responsibility of the competent authority institutionally separate from that of the applicant(s)/licensee(s)? If not, what is the relationship?
- c. If the competent authority comprises more than one organization (e.g. national and State bodies), what is the relationship between these bodies having responsibility for physical protection of nuclear material and nuclear facilities?
- d. Does the competent authority possess the following powers for regulatory licensing, inspection and enforcement:
 - i. To establish and issue binding regulations, requirements and standards which, among other things, serve as the basis for inspection;
 - ii. To enter at any time for inspection purposes the premises of any nuclear facility or related vendor establishment;
 - iii. To require preparation of and access to within a reasonable time such reports and documents from applicant(s)/licensee(s) and their vendors as are essential for the performance of its inspection responsibilities;
 - iv. To require the co-operation and support of each of the various governmental bodies and consultants possessing inspection related competence or qualifications;
 - v. To communicate to authorized organizations inspection information, findings, recommendations and conclusions;
 - vi. To require licensees to promptly inform the competent authority of conditions, events or developments which could affect the secure operation of nuclear facilities; and
 - vii. To require licensees to comply within a reasonable period of time with all decisions and enforcement actions of the competent authority?
 - viii. To apply appropriate sanctions to responsible persons (e.g., licensees) in case of non-compliance with the legislation on physical protection.
- e. If any answers under (d) are yes, identify the principal laws, ordinances, decrees or other legal provisions that confer the authority.
- f. What are the competent authority's responsibilities for informing other relevant governmental organizations and the public of regulatory activities and physical protection related issues? How are these responsibilities discharged?

- g. What are the competent authority's international contacts in the field of physical protection for:
 - i. exchange of information;
 - ii. notification of criminal incidents or abnormal occurrences; and
 - iii. mutual assistance in the event of a nuclear related incident (e.g., co-operation the recovery and protection of stolen material)?
- h. Are these contacts based upon formal exchange agreements or are they on an ad hoc basis?
 - i. At what levels are international contacts made?
 - j. Does the competent authority actively participate in the activities of international organizations?
 - k. Are the competent authority's physical protection objectives clearly stated and readily understandable? Do they strike a good balance between being too general and too prescriptive, and between innovation and reliance on proven techniques?
 - l. Has the budget for the competent authority kept pace with inflation and the growth of the industry? Is funding sufficient to allow the employment of staff of adequate competence?

II-3. Regulations and guidance

The competent authority needs to establish a clear framework of requirements with which applicant(s)/licensee(s) should comply and to provide guidance amplifying how regulatory obligations may be fulfilled. Detailed regulations and guides are not obligatory for all situations. The competent authority may consider it appropriate to develop them in step with the development of the national nuclear programme.

The competent authority should endeavour to ensure that regulations, codes, guides, etc. (see Section II-1.2) explicitly address the possibilities for unauthorized removal of nuclear material or for sabotage as the main reason for their issuance.

II-3.1 Objectives

The competent authority should establish a clear policy regarding the approach taken to elaborate regulations and guides. This policy should be developed to suit both the licensing system and the governmental structure of each Member State.

The competent authority should ensure that an applicant/licensee is made aware of regulations and guides that are applicable. The applicant(s)/licensee(s) should have the opportunity to comment during the elaboration process (drafting) of regulations and guides

II-3.2. Documentation

List of all relevant regulations, guides, codes or technical standards that are required to be used or complied with by the applicant(s)/licensee(s).

II-3.3. Review points/specimen questions

- a. What is the hierarchy of regulations and guides that are to be used by the applicant(s)/licensee(s)?
- b. What system of consultation with independent bodies and/or applicant(s)/licensee(s) is in place to obtain feedback on codes or guides produced by the competent authority? Is this voluntary or required by legislation?
- c. What system of internal scrutiny and assessment has the competent authority established to confirm the adequacy of any code or guide prior to its implementation?

II-4. Licensing process

While responsibility for implementation of physical protection rests with each applicant/licensee, the competent authority exercises control and oversight, inter alia, at all stages of the life of nuclear installations primarily through the licensing process. Hence, the primary task of the competent authority is to consider whether to approve (or not) applications for new licences, renewals or amendments to existing licences. The competent authority should issue a licence only when the activities comply with the State physical protection legislation. The licence itself should be an official document authorizing an activity or activities including approval of the licensees' physical protection plan.

Licence conditions need to be kept as a live issue throughout all stages of the life of a nuclear installation. The licence may be changed or modified as circumstances dictate but always by and under the control of the competent authority.

II-4.1. Objectives

The competent authority should ensure that any licence are issued only if:

- In compliance with the relevant national legislation;
- Accurately specifies the activity or activities to be licenced; and
- Clearly identifies any conditions regarding the activities, i.e. requirements, limitations or constraints.

The competent authority should ensure that it has received, and assessed, adequate documentary evidence from each applicant/licensee regarding the physical protection plan for activity or activities to be licenced before the licence is issued

Any change to a licence should be controlled by the competent authority to ensure that the change receives appropriate levels of consideration and assessment before being implemented.

II-4.2. Documentation

- Description of the requirements placed on an organization to whom a licence can be granted;
- Description of the general licensing philosophy of the competent authority, e.g. prescriptive or non-prescriptive; and
- Description of the particular function(s) of a licence in the Member State, how it is granted and who grants it; identify whether one or more licences is or are required for a nuclear installation and/or activity as described in II-1.3(a), which stages of the licensing process they cover and whether they are time or event limited.

II-4.3. Review points/specimen questions

- a. What are the statutory responsibilities of licensees?
- b. What documents relating to physical protection measures should be submitted as part of the licence application?
- c. Which area(s) of the government organization is competent to grant licences and what are the principal prerequisites for granting a licence?
- d. Are there any other special features which have a bearing on the licensing process?
- e. What are the main requirements of a licence for each type of nuclear facility or activity described in II-1.3(a)?
- f. Is a licence specific to one facility or can it apply to a site with more than one facility?
- g. Do licences have restrictions, duties on the licensee or time limits for its validity and, if so,

- h. what are they? If not, explain the reasons for not having such limits?
- h. How does the competent authority control any proposed changes to a licence? What system is in place to ensure that such a change receives appropriate consideration and assessment before being implemented?
- i. Does the competent authority initiate independent analyses (e.g. technical system testing, computer modelling)?
- j. What programme of review and assessment is carried out by the competent authority prior to the granting of a licence for the commencement of construction of a nuclear facility?
- k. What programme of review and assessment is carried out by the competent authority during construction and commissioning of a nuclear facility?
- l. How does the competent authority review submissions from licensees for modifications during the operational phase of the nuclear facility? Does the competent authority require periodic physical protection reviews during the operation of the nuclear facility? If so, what period of time is allowed between reviews?
- m. What requirements are in place for approval of modifications to a nuclear systems that could affect physical protection systems?

II-5. Integration and participation of other organizations

The State System of Physical Protection will encompass not only physical protection regulations and the relevant competent authorities but also the participation of other State organizations, agencies and official bodies. Their participation in the system will be essential to ensure:

- The threat is assessed, kept up to date and communicated to those regulatory bodies and authorities responsible for the arrangements for the physical protection of nuclear materials and facilities.
- Response forces with the necessary authority, established by the State's constitution or statutory laws, are made available to respond to incidents which could threaten nuclear material and nuclear facilities and that these response forces are exercised in their role.
- That the responsibility for recovery and protection of stolen nuclear materials is clear.
- That adequate co-operation and assistance mechanisms for such recovery and protection of stolen material are in place.

II-5.1. Objectives

The State should establish a clear policy and procedures to ensure that State bodies, agencies and other official organizations provide the necessary support for the physical protection of nuclear materials and to counter sabotage

II-5.2. Review points/specimen questions

- a. How does the competent authority co-ordinate, liaise or consult with the governmental or other bodies having responsibility for each of the following:
 - i. Criminal investigations;
 - ii. The provision of off-site response forces and contingency planning;
 - iii. National security;
 - iv. Transportation of hazardous materials;
 - v. Any other areas as appropriate?
- b. Are there procedures in place for the relevant State authority to communicate information on the threat to nuclear material and nuclear facilities and maintain it up to date?

- c. Does the assessment of the threat include information on adversary numbers, characteristics, capabilities and motivation?
- d. To whom are threat assessments passed?
- e. Are there procedures for advising those responsible for physical protection about the threat and significant changes to the threat?
- f. Which parts of the State organization arrange for external response to serious incidents concerning the physical protection?
- g. How do these response forces react to such incidents and how are they authorized?
- h. Are there contingency plans prepared for response to serious incidents concerning physical protection and how are these integrated with those for other emergency services?
- i. Are these plans exercised and modified as necessary?
- j. Which organization is responsible for the investigation of theft, sabotage or threats to sabotage or misuse nuclear materials and for the recovery of such materials?
- k. Are procedures in place for informing such organization of the loss/theft, sabotage or threats to sabotage or misuse of nuclear materials?
- l. Are there procedures to ensure that the physical protection competent authority and nuclear materials accounting and control authority activities are co-ordinated?

II-6. Facility and nuclear transport implementation of physical protection regulations

The concept of physical protection at any nuclear facility or during transportation of nuclear material takes into account:

- The State's assessment of the threat;
- The type of the nuclear material categorized by the State in accordance with the Convention on Physical Protection (INFCIRC/274/Rev.1) and in the recommendations in INFCIRC/225, to be protected against unauthorized removal;
- Consideration of the potential for radioactive release in the event of sabotage; and
- Emergency procedures to handle a possible threat.

It is important that physical protection issues are considered early in the design of the nuclear facility and in any later modifications and before the transport of nuclear material. The physical protection system should aim to:

- Deter any internal or external threat to the nuclear material or nuclear facilities;
- Detect any attempt to breach the physical protection system;
- Delay any attempt of unauthorized removal of nuclear material or attempt sabotage; and
- Respond to threats.

To achieve these aims, physical protection systems require the integration of:

- Hardware including intrusion detection and access control systems and barriers such as fences, walls, doors and locks;
- Facility design to provide for defence in depth around the nuclear materials requiring protection;
- Facility design to protect against the effects of sabotage;
- Facility/licensee plans and procedures for the physical protection of nuclear materials during transport, both on and off the facility;
- Personnel responsible for managing the physical protection system at all levels; and

- Procedures to create and maintain conditions in which the physical protection system operates as intended.

II-6.1. Objectives

The objectives of the physical protection system are to ensure that:

- Access to Category I and II nuclear materials and facilities is limited to those whose trustworthiness has been determined and that these individuals are kept to the minimum;
- Access to nuclear materials and facilities is positively authorized and these authorizations are regularly reviewed;
- In the event of a breach of the physical protection system being detected, a rapid and comprehensive response can be deployed to neutralize any threat or to recover any nuclear material; and
- During transportation of nuclear materials both on and off the facility, physical protection arrangements are "in depth" and emergency procedures are sufficient to handle effectively the possible threats.

The physical protection system should be designed to deter, detect, delay, and respond, if necessary, to the unauthorized removal of nuclear materials with progressively more severe physical protection systems protecting nuclear materials according to its categorization. However, at nuclear facilities where there is a potential for unacceptable releases of radioactive material, regardless of the categorization of the nuclear material contained therein, the physical protection system must be designed to adequately deter, detect and delay sabotage and provide an effective response.

II-6.2. Review points/specimen questions

- a. Has the applicant/licensee submitted a physical protection plan? Does it contain sufficient information about the nuclear material used, transported, or stored in the facility to be protected against unauthorized removal? Does it contain sufficient information about the areas of the facility determined to be protected against sabotage?
- b. Has the applicant defined the objectives of the physical protection measures which are specific to the category of nuclear material and to the way it is used, transported and stored at the facility? Has the applicant defined the objectives of physical protection measures specific to the protection against sabotage?
- c. Has the applicant/licensee defined the objectives of the physical protection measures which are specific to the category of nuclear material during transport to and from the facility/licensee?
- d. Has a safety analysis been performed in accordance with the national threat assessment and assumed adversary model to identify the facility areas that are to be protected?
- e. Are the protected areas, inner areas, and vital areas defined? Is the protected area under surveillance? Are the inner/protected areas protected by a barrier? Are the inner and vital areas under access control?
- f. Does the access control system provide for the identification and access authorization of all incoming personal, material and vehicles?
- g. Are there barriers to prevent the entry of unauthorized incoming vehicles?
- h. Is there a room inside a protected area where security personnel can monitor the condition

and status of all physical protection equipment and which also has sufficient equipment to allow for communications with the safety and security personnel and to communicate with external response forces?

- i. Does the applicant/licensee have a head of security charged with the entire facility's physical protection system? Does the head of security have sufficient authority to report to the applicant/licensee representative and also, if appropriate, to the national regulatory authority directly? Who makes ultimate decisions regarding physical protection matters?
- j. Is there a sufficient guard service with personal who have appropriate levels of: education; training and experience; trustworthiness; physical ability; facility knowledge and authority?
- k. Does the guard force have sufficient equipment to carry out their tasks (e.g., communications equipment, weapons)?
- l. Does the applicant/licensee have a program for training and exercising personnel in the implementation of physical protection measures? Are there instructions issued for this purpose and are they adequate?
- m. Is there a reporting system that supports the competent authority with sufficient information about relevant physical protection events and circumstances?
- n. Is physical protection equipment suitable for its intended use?
- o. Is there a maintenance and testing program for the physical protection equipment?
- p. Is there a program for periodic checks of the efficient functioning of the physical protection systems?
- q. Are there adequate on-site instructions and procedures in case of physical protection equipment failure?
- r. Is the information exchange between the safety and the security personnel sufficiently organized in planning and implementation of physical protection measures and in response to emergency situations?
- s. How are conflicts between the requirements or measures of physical protection or safety resolved?
- t. Do plans for the transport of nuclear materials include: protecting advance information on the movement; minimising the numbers of people who need to know the details; ensuring the trustworthiness of the individuals involved; minimising the time and number of transfers for the movement; providing load carriers with the necessary physical protection consistent with the category of nuclear material; avoiding the use of regular movement schedules and routes?
- u. Are measures consistent with national requirements taken to protect the confidentiality of information relating to transport operations, particularly for nuclear materials in Categories I and II?
- v. As appropriate for the categories of nuclear materials concerned, are there procedures for notification (and prior agreements in case of international transfer of nuclear material) of delivery by the sender and acceptance by the receiver of the time and place of the transfer of physical protection responsibility; are there procedures for the searching of transport vehicle before loading; are suitable communications provided between the transport and the State or facility monitoring the movement; are escorts provided for the transport and are their instructions sufficient;

are there contingency plans for response forces designated by the state to respond to an incident or emergency; and is the response force able to react to prevent the unauthorized removal of the nuclear material or to prevent sabotage?

- w. As appropriate for the categories of nuclear material concerned, do the procedures for international shipments include notification of the sending and receiving States' authorities; adequate physical protection for the category of material concerned, including arrangements for response to incidents or emergencies; constant communications between the transport and the sending and receiving States' competent authorities; the use of coded information to protect details of the movement; transfer of physical protection responsibility at agreed places and times?

II-7. Inspection and enforcement

The competent authority should establish a regime for inspection and enforcement that complements its licensing activities. It needs to ensure that each licensee complies with national legislation and maintains the nuclear installation(s), throughout all stages of its life, in conformity with the physical protection system approved by the competent authority

An inspection regime needs to be established to satisfy the competent authority that the licensee is fulfilling the conditions set out in the licence specifically related to physical protection measures. The competent authority will require correction of any non-compliance with the licence by exercising appropriate enforcement powers.

II-7.1. Objectives

The competent authority should establish a structured system for evaluating and systematically following up all inspection findings and an enforcement system to ensure that all aspects of legislation, including the licence conditions, are fully complied with by each applicant/licensee that this compliance is verifiable and that experience gained is fed back to the licensee.

The competent authority should ensure that the responsible persons in a licensee's organizations are qualified to discharge their physical protection functions. The competent authority should ensure that the required self-assessments are performed by each licensee at times specified.

II-7.2. Documentation

- Description of how the competent authority plans, carries out and documents its inspections;
- Description of the enforcement powers of the competent authority, how much is delegated and to what level, and how they are exercised in practice. Identify the relevant legislation that confers such powers; and
- Description of working relationship between any site/regional-based and headquarters- based competent authority staff.

II-7.3. Review point/specimen questions

- a. What are the responsibilities of the competent authority for inspection and enforcement of the physical protection measures? Specify the distribution of inspection responsibilities between the competent authority and the licensee. For example, does the competent authority only ensure that the licensee performs its own inspection programmes properly, or do both the competent authority and the licensee have separate inspection programmes?

- b. What types of inspection does the competent authority conduct to verify that the licensee has adequately demonstrated that installations comply with the physical protection regulations? Are there regulatory inspection programmes to which the inspector should adhere?
- c. Are special inspections to verify the physical protection measures (i.e. other than those in the routine programme) conducted as the result of a specific identified problem, concerns of the inspector, or a history of incidents or deficiencies?
- d. What kind of analysis is performed on regulatory inspection reports and by whom?
- e. Describe the basic arrangements and procedures for licensee reporting and classification of:
 - i. abnormal occurrences and incidents concerning physical protection; and
 - ii. modifications to the facility.

The statement should describe how the regulatory inspection staff are made aware of the reports or requests, and should include any special requirements such as formal reporting and notification to third parties.

- f. What are the procedures for investigating abnormal occurrences or incidents?
- g. What legal powers of enforcement does the competent authority have to ensure compliance with the licence or other regulations?
- h. What methods of enforcement (e.g. warning letters, in order to curtail activities, suspension, withdrawal of licence, fines) are available to the competent authority? Describe the basic criteria for each type of enforcement action.
- i. What sanctions are included in the legislation in case of non-compliance with the physical protection legislation, including those acts included as punishable offences in the State penal legislation (e.g., unauthorized removal, theft or robbery, or threat to use nuclear material to cause death or injury to persons or damage to property)?

PART III: GUIDE TO DRAFTING MISSION REPORT

III-1. Introduction

The team members, having followed the IPPAS Guidelines and supplementary guidance, will collect a vast amount of information that should be recorded in the form of technical notes. These technical notes will then be the basis of the mission report. In writing the mission report, the following should be taken into account:

- emphasis should be given to the team member's objective observations, with clear conclusions and the minimum of description;
- the language should be clear, concise, objective and impersonal (short, direct sentences aid understanding);
- the official names (or official translation) should be used to designate organizational units, positions and systems; and
- if abbreviations or acronyms are used, they should be introduced upon their first use.

It should be emphasized that this Guide on drafting mission report:

- is not intended to substitute for the IPPAS guidelines and supplementary guidance; and
- is not to be used as a strict list with an obligation to describe every separate item or with a prohibition on any other items.

III-2. Format

Each area of review should be designated by a number and a heading (bold and capitalized). For example:

1. GOVERNMENTAL ORGANIZATION AND PERTINENT PHYSICAL PROTECTION LEGISLATION

2. ROLE AND RESPONSIBILITY OF THE COMPETENT AUTHORITY

3. REGULATIONS AND GUIDANCE

4. LICENSING PROCESS

5. INTEGRATION AND PARTICIPATION OF OTHER ORGANIZATIONS

6. FACILITY IMPLEMENTATION OF PHYSICAL PROTECTION REGULATIONS

7. INSPECTION AND ENFORCEMENT

The report should commence with the general impressions that the team has gained from the review to provide a perspective for the subsequent, more detailed, discussion of the individual subareas.

The subareas should be designated by a two digit number and a bold subheading, e.g. in

2. ROLE AND RESPONSIBILITY OF THE COMPETENT AUTHORITY:

2.1. Legal status

2.2. Responsibilities

2.3. Functions

Further subdivisions, if necessary, should be structured under appropriate subheadings. The final structure for each subarea could be several paragraphs long, possibly together with recommendations, suggestions and good practices. These should be numbered and, if necessary, itemized for definitions of recommendations, suggestions and good practices, refer to Section I-5.5 of this publication

III-3. Numbering system

Recommendations, suggestions and good practices are each to be identified by a four digit number. The first three digits give the area and subarea of the review and the fourth digit will always be (1) for a recommendation or suggestion, or (2) for a good practice.

Recommendations and suggestions must be preceded and supported by bases. If there are several bases for recommendations and suggestions (or good practices) in one subarea, they can be itemized accordingly and each individual item numbered (1), (2), (3), etc

A 'basis' is a recapitulation of the concern giving rise to a recommendation or suggestion. It should briefly restate the issue but not introduce new material or thoughts (such issues should be addressed in the preceding text).

If there are several recommendations in one subarea related to one basis, these can be itemized accordingly and each individual item identified (a), (b), (c), etc.

If there is no 'basis' for making a recommendation or suggestion, then the relevant subarea may contain the word 'none'. If there is neither a recommendation nor a suggestion then the relevant subarea should include a suitable phrase to this effect, e.g. "In the area reviewed the

performance corresponds with normal proven and effective international practices". If no good practices, as defined in Section I-5, are identified, then the subarea number need not be included.

III-4. Example of layout

7. INSPECTION AND ENFORCEMENT [General observations on inspection policy/programme/reporting and action taken to ensure deficiencies identified are rectified]

7.1 INSPECTION BY COMPETENT AUTHORITY

[Observations on frequency and type of inspections carried out at facilities and qualifications/training of inspectors]

7.2 REVIEW ARRANGEMENTS

[Observations on evaluation assessments carried out by operators/competent authority]

7.3 PHYSICAL PROTECTION PLAN

[Observation on arrangements for submitting formal applications for permanent/temporary changes to the plan. Observations on compliance inspections by competent authority]

7.3 REVIEW BY OTHER BODIES

[Observations on other reviews carried out, e.g. licensing of guard force, etc.]

7.3 RECOMMENDATIONS AND SUGGESTIONS

[as appropriate]

REFERENCES

[1] INTERNATIONAL ATOMIC ENERGY AGENCY, The Physical Protection of Nuclear Material and Nuclear Facilities, INFCIRC/225/Rev.4, IAEA, Vienna (1999).

[2] INTERNATIONAL ATOMIC ENERGY AGENCY, The Convention on the Physical Protection of Nuclear Material, INFCIRC/274/Rev.1 (1980).

[3] INTERNATIONAL ATOMIC ENERGY AGENCY, Guidance and Considerations for Implementation of INFCIRC/225/Rev.3, The Physical Protection of Nuclear Material, IAEA-TECDOC-967, Vienna (1997).

[4] INTERNATIONAL ATOMIC ENERGY AGENCY, Security of Safeguards Information, SMM 4.4, Safeguards Manual (June 1993).

Code of Conduct on the Safety and Security of Radioactive Sources

International Atomic Energy Agency

[Reproduced from IAEA/CODEOC/2004, January 2004]

FOREWORD

This Code of Conduct on the Safety and Security of Radioactive Sources was approved by the Board of Governors of the International Atomic Energy Agency (IAEA) on 8 September 2003. It replaces the version published (with the symbol IAEA/CODEOC/2001) by the IAEA in March 2001. It reflects the important findings produced by the *International Conference on Security of Radioactive Sources* held in Vienna in March 2003 (the Hofburg Conference).

The G-8 annual summit held in Evian, France, in June 2003 issued a statement on "non-proliferation of weapons of mass destruction — securing radioactive sources" in which it encouraged all countries to strengthen controls on radioactive sources and observe the Code of Conduct.¹²

The Code of Conduct marks the culmination of developments and efforts spanning the past several years that are described below.

The International Conference on the Safety of Radiation Sources and Security of Radioactive Materials held in Dijon, France, in September 1998 produced findings in the light of which the IAEA's Board of Governors requested the Secretariat to the IAEA to prepare an action plan.

The action plan subsequently approved by the Board of Governors, in September 1999, called for the development of a Code of Conduct on the Safety and Security of Radioactive Sources. In September 2000, the Board of Governors took note of the Code, and the General Conference invited IAEA Member States to take note of it and to consider, as appropriate, means of ensuring its wide application.

International support for the Code was soon expressed at the International Conference of National Regulatory Authorities with Competence in the Safety of Radiation Sources and the Security of Radioactive Material held in Buenos Aires in December 2000. The Buenos Aires Conference called upon States to provide for the application and implementation of the Code.¹³

In 2001, the Secretariat, taking into account — inter alia — the major findings of the Buenos Aires Conference and the "Common Position"², produced a Revised Action Plan for the Safety and Security of Radiation Sources (the Revised Action Plan, approved by the Board of Governors on 10 September 2001). The Revised Action Plan called for the Secretariat to consult Member States on their experience in implementing the Code. The effectiveness of the Code was therefore reviewed at a meeting of technical and legal experts in August 2002. At that meeting, the Code's provisions relating to the security of sources were strengthened in the light of the events of 11 September 2001 and consensus was reached on a number of previously unresolved issues. It was recognized that further work was needed, however, especially in relation to the scope of the Code. A draft revised Code was made available to the Board of Governors and the General Conference in an IAEA document issued in August 2002.

At a second meeting of technical and legal experts, held in March 2003, changes were made to some of the definitions in the Code and language encouraging the harmonization of the formats of national registers of radioactive sources was added. Also, progress was made towards defining the scope of the Code and with regard to the inclusion of provisions relating to import and export controls. As final consensus was not reached, however, the experts agreed that the resulting text should be circulated to all IAEA Member States for comment.

Besides being circulated to all IAEA Member States, the text was made available to the Hofburg Conference. The Findings of the Conference's President included a recommendation that States make a concerted effort to follow the principles contained in the Code, which was currently being revised.

Finally, at a third meeting of technical and legal experts, held in July 2003, consensus was reached on the scope of the revised Code and on the revised Code's text.

On 19 September 2003, following approval of the revised Code by the Board of Governors, the General Conference, having welcomed the Board's decision, urged each State to write to the Director General stating:

- that it fully supports and endorses the IAEA's efforts to enhance the safety and security of radioactive sources; and
- that it is working towards following the guidance contained in the revised Code.

In addition, it requested the Director General, subject to the availability of resources, to compile, maintain and publish a list of States that make a political commitment by writing to him as urged by the General Conference.

¹³ Further support for the Code was expressed in April 2001 by the First Africa Workshop on the Establishment of a Legal Framework Governing Radiation Protection, the Safety of Radiation Sources and the Safe Management of Radioactive Waste. The workshop, held in Addis Ababa, adopted a "Common Position" in which it called upon the IAEA to "create a forum for African countries to consider the Code of Conduct on the Safety and Security of Radioactive Materials, and give it a legally binding effect so that the safe and peaceful use of nuclear technology is not compromised".

¹² The G-8 also issued an action plan in which it lent its political support to the IAEA in connection with the Code.

Although the vast majority of radioactive sources used around the world are managed safely and securely, and bring many benefits to humankind, accidents involving radioactive sources have occurred, some with serious — even fatal — consequences, and in the 1990s there was growing concern about radioactive sources that for one reason or another were not subject to regulatory control or over which regulatory control had been lost. The IAEA Secretariat expects that implementation of this Code of Conduct will help national authorities to ensure that radioactive sources are used within an appropriate framework of radiation safety and security.

THE IAEA'S MEMBER STATES

Noting that radioactive sources are used throughout the world for a wide variety of beneficial purposes, e.g. in industry, medicine, research, agriculture and education,

Aware that the use of these radioactive sources involves risks due to potential radiation exposure,

Recognizing the need to protect individuals, society and the environment from the harmful effects of possible accidents and malicious acts involving radioactive sources,

Noting that ineffective, interrupted or sporadic regulatory or management control of radioactive sources has led to serious accidents, or malicious acts, or to the existence of orphan sources,

Aware that the risks arising from such incidents must be minimized and protected against through the application of appropriate radiation safety and security standards,

Recognizing the importance of fostering a safety and security culture in all organizations and among all individuals engaged in the regulatory control or the management of radioactive sources,

Recognizing the need for effective and continuous regulatory control, in particular to reduce the vulnerability of radioactive sources during transfers, within and between States,

Recognizing that States should take due care in authorizing exports, particularly because a number of States may lack appropriate infrastructure for the safe management and secure protection of radioactive sources, and that States should make efforts to harmonize their systems of export control of radioactive sources,

Recognizing the need for technical facilities, including appropriate equipment and qualified staff, to ensure the safe management and secure protection of radioactive sources,

Noting that the International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources contain recommendations for protection against exposure to ionizing radiation and for the safety and security of radioactive sources,

Recalling the IAEA's Safety Requirements document on Legal and Governmental Infrastructure for Nuclear, Radiation, Radioactive Waste and Transport Safety,

Taking account of the provisions of the Convention on Early Notification of a Nuclear Accident (1986) and of the provisions of the Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency (1986),

Taking account of the provisions of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (1997), in particular those provisions which relate to the transboundary movement of radioactive waste and to the

possession, remanufacturing or disposal of disused sealed sources,

Recognizing that, while unsealed radioactive material is excluded from this Code, there may be circumstances where it should be managed in accordance with the objectives of this Code,

Recognizing the global role of the IAEA in the area of the safety and security of radioactive sources,

Taking account of the IAEA's categorization of radioactive sources, currently found in IAEA-TECDOC-1344 entitled "Categorization of radioactive sources", while recognizing that TECDOC-1344 is based on deterministic health effects and does not fully take into account the range of impacts that could result from accidents or malicious acts involving radioactive sources, and

Taking account of the approval by the Board of Governors of the activities regarding protection against nuclear terrorism proposed to it in March 2002, including activities relating to the security of radioactive material other than nuclear material,

DECIDE that the following Code of Conduct should serve as guidance to States for — *inter alia* — the development and harmonization of policies, laws and regulations on the safety and security of radioactive sources.

I. DEFINITIONS

1. For the purposes of this Code:

"authorization" means a permission granted in a document by a regulatory body to a natural or legal person who has submitted an application to manage a radioactive source. The authorization can take the form of a registration, a licence or alternative effective legal control measures which achieve the objectives of the Code.

"disposal" means the emplacement of radioactive sources in an appropriate facility without the intention of retrieval.

"disused source" means a radioactive source which is no longer used, and is not intended to be used, for the practice for which an authorization has been granted.

"management" means the administrative and operational activities that are involved in the manufacture, supply, receipt, possession, storage, use, transfer, import, export, transport, maintenance, recycling or disposal of radioactive sources.

"orphan source" means a radioactive source which is not under regulatory control, either because it has never been under regulatory control, or because it has been abandoned, lost, misplaced, stolen or transferred without proper authorization.

"radioactive source" means radioactive material that is permanently sealed in a capsule or closely bonded, in a solid form and which is not exempt from regulatory control. It also means any radioactive material released if the radioactive source is leaking or broken, but does not mean material encapsulated for disposal, or nuclear material within the nuclear fuel cycles of research and power reactors.

"regulatory body" means an entity or organization or a system of entities or organizations designated by the government of a State as having legal authority for exercising regulatory control with respect to radioactive sources, including issuing authorizations, and thereby regulating one or more aspects of the safety or security of radioactive sources.

“regulatory control” means any form of control or regulation applied to facilities or activities by a regulatory body for reasons related to radiation protection or to the safety or security of radioactive sources.

“safety” means measures intended to minimize the likelihood of accidents involving radioactive sources and, should such an accident occur, to mitigate its consequences.

“safety culture” means the assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, protection and safety issues receive the attention warranted by their significance.

“security” means measures to prevent unauthorized access or damage to, and loss, theft or unauthorized transfer of, radioactive sources.

“security culture” means characteristics and attitudes in organizations and of individuals which establish that security issues receive the attention warranted by their significance.

“storage” means the holding of radioactive sources in a facility that provides for their containment with the intention of retrieval.

II. SCOPE AND OBJECTIVES

2. This Code applies to all radioactive sources that may pose a significant risk to individuals, society and the environment, that is the sources referred to in Annex I of this Code. States should also devote appropriate attention to the regulation of other potentially harmful radioactive sources.

3. This Code does not apply to nuclear material as defined in the Convention on the Physical Protection of Nuclear Material, except for sources incorporating plutonium-239.

4. This Code does not apply to radioactive sources within military or defence programmes.

5. (a) The objectives of this Code are, through the development, harmonization and implementation of national policies, laws and regulations, and through the fostering of international co-operation, to:

(i) achieve and maintain a high level of safety and security of radioactive sources;

(ii) prevent unauthorized access or damage to, and loss, theft or unauthorized transfer of, radioactive sources, so as to reduce the likelihood of accidental harmful exposure to such sources or the malicious use of such sources to cause harm to individuals, society or the environment; and

(iii) mitigate or minimize the radiological consequences of any accident or malicious act involving a radioactive source.

(b) These objectives should be achieved through the establishment of an adequate system of regulatory control of radioactive sources, applicable from the stage of initial production to their final disposal, and a system for the restoration of such control if it has been lost.

6. This Code relies on existing international standards relating to nuclear, radiation, radioactive waste and transport safety and to the control of radioactive sources. It is intended to complement existing international standards in these areas.

III. BASIC PRINCIPLES

GENERAL

7. Every State should, in order to protect individuals, society and the environment, take the appropriate measures necessary to ensure:

(a) that the radioactive sources within its territory, or under its jurisdiction or control, are safely managed and securely protected during their useful lives and at the end of their useful lives; and

(b) the promotion of safety culture and of security culture with respect to radioactive sources.

8. Every State should have in place an effective national legislative and regulatory system of control over the management and protection of radioactive sources. Such a system should:

(a) place the prime responsibility for the safe management of, and the security of, radioactive sources on the persons being granted the relevant authorizations;

(b) minimize the likelihood of a loss of control;

(c) include national strategies for gaining or regaining control over orphan sources;

(d) provide for rapid response for the purpose of regaining control over orphan sources;

(e) foster ongoing communication between the regulatory body and users;

(f) provide for measures to reduce the likelihood of malicious acts, including sabotage, consistent with the threat defined by the State;

(g) mitigate or minimize the radiological consequences of accidents or malicious acts involving radioactive sources; and

(h) provide for its own continuous improvement.

9. Every State should ensure that appropriate facilities and services for radiation protection, safety and security are available to, and used by, the persons who are authorized to manage radioactive sources. Such facilities and services should include, but are not limited to, those needed for:

(a) searching for missing sources and securing found sources;

(b) intervention in the event of an accident or malicious act involving a radioactive source;

(c) personal dosimetry and environmental monitoring; and

(d) the calibration of radiation monitoring equipment.

10. Every State should ensure that adequate arrangements are in place for the appropriate training of the staff of its regulatory body, its law enforcement agencies and its emergency services organizations.

11. Every State should establish a national register of radioactive sources. This register should, as a minimum, include Category 1 and 2 radioactive sources as described in Annex 1 to this Code. The information contained in that register should be appropriately protected. For the purpose of introducing efficiency in the exchange of radioactive source information between States, States should endeavour to harmonize the formats of their registers.

12. Every State should ensure that information concerning any loss of control over radioactive sources, or any incidents, with potential transboundary effects involving radioactive sources, is provided promptly to potentially affected States through established IAEA or other mechanisms.

13. Every State should:

(a) promote awareness among industry, health professionals, the public, and government bodies of the safety and security hazards associated with orphan sources; and

(b) encourage bodies and persons likely to encounter orphan sources during the course of their operations (such as scrap metal recyclers and customs posts) to implement appropriate monitoring programmes to detect such sources.

14. Every State should encourage the reuse or recycling of radioactive sources, when practicable and consistent with considerations of safety and security.

15. Every State should, in implementing this Code, emphasize to designers, manufacturers (both manufacturers of radioactive sources and manufacturers of devices in which radioactive sources are incorporated), suppliers and users and those managing disused sources their responsibilities for the safety and security of radioactive sources.

16. Every State should define its domestic threat, and assess its vulnerability with respect to this threat for the variety of sources used within its territory, based on the potential for loss of control and malicious acts involving one or more radioactive sources.

17. Each State should take appropriate measures consistent with its national law to protect the confidentiality of any information that it receives in confidence under this Code of Conduct from another State or through participation in an activity carried out for the implementation of this Code of Conduct. If any State provides information to international organizations in confidence, steps should be taken to ensure that the confidentiality of such information is protected. A State that has received information in confidence from another State should only provide this information to third parties with the consent of that other State. A State is not expected to provide any information that it is not permitted to communicate pursuant to its national law or which would jeopardize the security of that State.

LEGISLATION AND REGULATIONS

18. Every State should have in place legislation and regulations that:

- (a) prescribe and assign governmental responsibilities to assure the safety and security of radioactive sources;
- (b) provide for the effective control of radioactive sources;
- (c) specify the requirements for protection against exposure to ionizing radiation; and
- (d) specify the requirements for the safety and security of radioactive sources and of the devices in which sources are incorporated.

19. Such legislation and/or regulations should provide for, in particular:

- (a) the establishment of a regulatory body whose regulatory functions are effectively independent of other functions with respect to radioactive sources, such as the management of radioactive sources or the promotion of the use of radioactive sources. This body should have the powers and characteristics listed in paragraphs 20 to 22;
- (b) measures to protect individuals, society and the environment from the deleterious effects of ionizing radiation from radioactive sources;
- (c) administrative requirements relating to the authorization of the management of radioactive sources;
- (d) provisions for exemption, as appropriate, from the administrative requirements referred to in paragraph (c) above;
- (e) administrative requirements relating to notifications to the regulatory body of actions involved in the management of radioactive sources that may engender a significant risk to individuals, society or the environment;
- (f) managerial requirements relating in particular to the establishment of adequate policies, procedures and measures for the control of radioactive sources;
- (g) requirements for security measures to deter, detect and delay the unauthorized access to, or the theft, loss or unauthorized use or removal of radioactive sources during all stages of management;

(h) requirements relating to the verification of the safety and security of radioactive sources, through safety and security assessments, monitoring and verification of compliance, and the maintenance of appropriate records; and

(i) the capacity to take appropriate enforcement actions.

REGULATORY BODY

20. Every State should ensure that the regulatory body established by its legislation has the authority to:

(a) establish regulations and issue guidance relating to the safety and security of radioactive sources;

(b) require those who intend to manage radioactive sources to seek an authorization, and to submit:

(i) a safety assessment; and

(ii) a security plan or assessment as appropriate for the source and/or the facility in which the source is to be managed, if deemed necessary in the light of the risks posed and, in the case of security, the current national threat assessment;

(c) obtain all relevant information from an applicant for an authorization;

(d) issue, amend, suspend or revoke, as necessary, authorizations for the management of radioactive sources.

(e) attach clear and unambiguous conditions to the authorizations issued by it, including conditions relating to:

(i) responsibilities;

(ii) minimum operator competencies;

(iii) minimum design and performance criteria, and maintenance requirements for radioactive sources and the devices in which they are incorporated;

(iv) minimum performance criteria and maintenance requirements for equipment and systems used to ensure the safety and security of radioactive sources;

(v) requirements for emergency procedures and communication links;

(vi) work procedures to be followed;

(vii) the safe and secure management of disused sources, including, where applicable, agreements regarding the return of disused sources to a supplier;

(viii) measures to determine, as appropriate, the trustworthiness of individuals involved in the management of radioactive sources; and

(ix) the confidentiality of information relating to the security of sources;

(f) obtain any relevant and necessary information from a person with an authorization, in particular if that is warranted by revised safety or security assessments;

(g) require those supplying or transferring radioactive sources or devices incorporating radioactive sources to provide the recipient with all relevant technical information to permit their safe and secure management.

(h) enter premises in order to undertake inspections for the verification of compliance with regulatory requirements;

(i) enforce regulatory requirements;

(j) monitor, or request other authorized bodies to monitor, at appropriate checkpoints for the purpose of detecting orphan sources;

(k) ensure that corrective actions are taken when a radioactive source is in an unsafe or non-secure condition;

(l) provide, on a case-by-case basis, to a person with an authorization and the public any information that is deemed necessary in order to protect individuals, society and the environment;

(m) liaise and co-ordinate with other governmental bodies and with relevant non-governmental bodies in all areas relating to the safety and security of radioactive sources;

(n) liaise with regulatory bodies of other countries and with international organizations to promote co-operation and the exchange of regulatory information;

(o) establish criteria for intervention in emergency situations;

(p) ensure that radioactive sources are stored in facilities appropriate for the purpose of such storage; and

(q) ensure that, where disused sources are stored for extended periods of time, the facilities in which they are stored are fit for that purpose.

21. Every State should ensure that its regulatory body:

(a) is staffed by qualified personnel;

(b) has the financial resources and the facilities and equipment necessary to undertake its functions in an effective manner; and

(c) is able to draw upon specialist resources and expertise from other relevant governmental agencies.

22. Every State should ensure that its regulatory body:

(a) establishes procedures for dealing with applications for authorization;

(b) ensures that arrangements are made for the safe management and secure protection of radioactive sources, including financial provisions where appropriate, once they have become disused;

(c) maintains appropriate records of persons with authorizations in respect of radioactive sources, with a clear indication of the type(s) of radioactive sources that they are authorized to use, and appropriate records of the transfer and disposal of the radioactive sources on termination of the authorizations. These records should be properly secured against unauthorized access or alteration, and back-up copies should be made;

(d) promotes the establishment of a safety culture and of a security culture among all individuals and in all bodies involved in the management of radioactive sources;

(e) establishes systems for ensuring that, where practicable, both radioactive sources and their containers, are marked by users with an appropriate sign to warn members of the public of the radiation hazard, but where this is not practicable, at least the container is so marked;

(f) establishes systems for ensuring that the areas where radioactive sources are managed are marked by users with appropriate signs to warn workers or members of the public, as applicable, of the radiation hazard;

(g) establishes systems for ensuring that, where practicable, radioactive sources are identifiable and traceable, or where this is not practicable, ensures that alternative processes for identifying and tracing those sources are in place;

(h) ensures that inventory controls are conducted on a regular basis by persons with authorizations;

(i) carries out both announced and unannounced inspections at an appropriate frequency taking into account past performance and the risks presented by the radioactive source;

(j) takes enforcement actions, as appropriate, to ensure compliance with regulatory requirements;

(k) ensures that the regulatory principles and criteria remain adequate and valid and take into account, as applicable, operating experience and internationally endorsed standards and recommendations;

(l) requires the prompt reporting by authorized persons of loss of control over, and of incidents in connection with, radioactive sources;

(m) provides guidance on appropriate levels of information, instruction and training on the safety and security of radioactive sources and the devices or facilities in which they are housed, to manufacturers, suppliers and users of radioactive sources;

(n) requires authorized persons to prepare emergency plans, as appropriate;

(o) is prepared, or has established provisions, to recover and restore appropriate control over orphan

sources, and to deal with radiological emergencies and has established appropriate response plans and measures;

(p) is prepared in respect of orphan sources that may have originated within the State to assist in obtaining technical information relating to their safe and secure management.

IMPORT AND EXPORT OF RADIOACTIVE SOURCES

23. Every State involved in the import or export of radioactive sources should take appropriate steps to ensure that transfers are undertaken in a manner consistent with the provisions of the Code and that transfers of radioactive sources in Categories 1 and 2 of Annex 1 of this Code take place only with the prior notification by the exporting State and, as appropriate, consent by the importing State in accordance with their respective laws and regulations.

24. Every State intending to authorize the import of radioactive sources in Categories 1 and 2 of Annex 1 to this Code should consent to their import only if the recipient is authorized to receive and possess the source under its national law and the State has the appropriate technical and administrative capability, resources and regulatory structure needed to ensure that the source will be managed in a manner consistent with the provisions of this Code.

25. Every State intending to authorize the export of radioactive sources in Categories 1 and 2 of Annex 1 to this Code should consent to its export only if it can satisfy itself, insofar as practicable, that the receiving State has authorized the recipient to receive and possess the source and has the appropriate technical and administrative capability, resources and regulatory structure needed to ensure that the source will be managed in a manner consistent with the provisions of this Code.

26. If the conditions in paragraphs 24 and 25 with respect to a particular import or export cannot be satisfied, that import or export may be authorized in exceptional circumstances with the consent of the importing State if an alternative arrangement has been made to ensure the source will be managed in a safe and secure manner.

27. Every State should allow for re-entry into its territory of disused radioactive sources if, in the framework of its national law, it has accepted that they be returned to a manufacturer authorized to manage the disused sources.

28. Every State which authorizes the import or export of a radioactive source should take appropriate steps to ensure that such import or export is conducted in a manner consistent with existing relevant international standards relating to the transport of radioactive materials.

29. Although not subject to the authorization procedures outlined in paragraphs 24 and 25 above, the transport of radioactive sources through the territory of a transit or transshipment state should be conducted in a manner consistent with existing relevant international standards relating to the transport of radioactive materials, in particular paying careful attention to maintaining continuity of control during international transport.

ROLE OF THE IAEA

30. The IAEA should:

(a) continue to collect and disseminate information on laws, regulations and technical standards relating to the safe management and secure protection of radioactive sources, develop and establish relevant technical standards and provide for the application of these standards at the request of any State, inter alia by advising and assisting on all aspects of the safe management and secure protection of radioactive sources;

(b) disseminate this Code and related information widely; and

(c) in particular, implement the measures approved by its policy-making organs.

DISSEMINATION OF THE CODE

31. Every State should, as appropriate, inform persons involved in the management of radioactive sources, such as industry, health professionals, and government bodies, and the public, of the measures it has taken to implement this Code, and should take steps to disseminate that information.

ANNEX I: LIST OF SOURCES COVERED BY THE CODE

Category 1 sources, if not safely managed or securely protected would be likely to cause permanent injury to a person who handled them, or were otherwise in contact with them, for more than a few minutes. It would probably be fatal to be close to this amount of unshielded material for a period of a few minutes to an hour. These sources are typically used in practices such as radiothermal generators, irradiators and radiation teletherapy.

Category 2 sources, if not safely managed or securely protected, could cause permanent injury to a person who handled them, or were otherwise in contact with them, for a short time (minutes to hours). It could possibly be fatal to be close to this amount of unshielded radioactive material for a period of hours to days. These sources are typically used in practices such as industrial gamma radiography, high dose rate brachytherapy and medium dose rate brachytherapy.

Category 3 sources, if not safely managed or securely protected, could cause permanent injury to a person who handled them, or were otherwise in contact with them, for some hours. It could possibly — although it is unlikely — be fatal to be close to this amount of unshielded radioactive material for a period of days to weeks. These sources are typically used in practices such as fixed industrial gauges involving high activity sources (for example, level gauges, dredger gauges, conveyor gauges and spinning pipe gauges) and well logging.

Table I provides a categorization by activity levels for radionuclides that are commonly used. These are based on D-values which define a dangerous source i.e.: a source that could, if not under control, give rise to exposure sufficient to cause severe deterministic effects. A more complete listing of radionuclides and associated activity levels corresponding to each category, and a fuller explanation of the derivation of the D-values, may be found in TECDOC-1344, which also provides the underlying methodology that could be applied to radionuclides not listed. Typical source uses are noted above for illustrative purposes only.

In addition to these categories, States should give appropriate attention to radioactive sources considered by them to have the potential to cause unacceptable consequences if employed for malicious purposes, and to aggregations of lower activity sources (as defined by TECDOC 1344) which require management under the principles of this Code.

TABLE I. ACTIVITIES CORRESPONDING TO THRESHOLDS OF CATEGORIES

Radionuclide	Category 1		Category 2		Category 3	
	1000 x D		10 x D		D	
	(TBq)	(Ci) ¹⁴	(TBq)	(Ci) ^a	(TBq)	(Ci) ^a

¹⁴ The primary values to be used are given in TBq. Curie values are provided for practical usefulness and are rounded after conversion.

Am-241	6.E+01	2.E+03	6.E-01	2.E+01	6.E-02	2.E+00
Am-241/Be	6.E+01	2.E+03	2.E+03	2.E+01	6.E-02	2.E+00
Cf-252	2.E+01	5.E+02	2.E-01	5.E-00	2.E-02	5.E-01
Cm-244	5.E+01	1.E+03	5.E-03	1.E+01	5.E-02	1.E+00
Co-60	3.E+01	8.E+02	3.E-01	8.E+00	3.E-02	8.E-01
Cs-137	1.E+02	3.E+03	1.E+00	3.E+01	1.E-01	3.E+00
Gd-153	1.E+03	3.E+04	1.E+01	3.E+02	1.E+00	3.E+01
Ir-192	8.E+01	2.E+03	8.E-01	2.E+01	8.E-02	2.E+00
Pm-147	4.E+04	1.E+06	4.E+02	1.E+04	4.E+01	1.E+03
Pu-238	6.E+01	2.E+03	6.E-01	2.E+01	6.E-02	2.E+00
Pu-239 ¹⁵ /Be	6.E+01	2.E+03	6.E-01	2.E+01	6.E-02	2.E+00
Ra-226	4.E+01	1.E+03	4.E-01	1.E+01	4.E-02	1.E+00
Se-75	2.E+02	5.E+03	2.E+00	5.E+01	2.E-01	5.E+00
Sr-90 (Y-90)	1.E+03	3.E+04	1.E+01	3.E+02	1.E+00	3.E+01
Tm-170	2.E+04	5.E+05	2.E+02	5.E+03	2.E+01	5.E+02
Yb-169	3.E+02	8.E+03	3.E+00	8.E+01	3.E-01	8.E+00
Au-198*	2.E+02	5.E+03	2.E+00	5.E+01	2.E-01	5.E+00
Cd-109*	2.E+04	5.E+05	2.E+02	5.E+03	2.E+01	5.E+02
Co-57*	7.E+02	2.E+04	7.E+00	2.E+02	7.E-01	2.E+01
Fe-55*	8.E+05	2.E+07	8.E+03	2.E+05	8.E+02	2.E+04
Ge-68*	7.E+02	2.E+04	7.E+00	2.E+02	7.E-01	2.E+01
Ni-63*	6.E+04	2.E+06	6.E+02	2.E+04	6.E+01	2.E+03
Pd-103*	9.E+04	2.E+06	9.E+02	2.E+04	9.E+01	2.E+03
Po-210*	6.E+01	2.E+03	6.E-01	2.E+01	6.E-02	2.E+00
Ru-106 (Rh-106)*	3.E+02	8.E+03	3.E+00	8.E+01	3.E-01	8.E+00
Tl-204*	6.E+01	5.E+05	2.E+02	5.E+03	2.E+01	5.E+02

* These radionuclides are very unlikely to be used in individual radioactive sources with activity levels that would place them within Categories 1, 2 or 3 and would therefore not be subject to the paragraph relating to national registries (11) or the paragraphs relating to import and export control (23 to 26).

Guidance on the Import and Export of Radioactive Sources

International Atomic Energy Agency
[May 2012]

FOREWORD

The IAEA Code of Conduct on the Safety and Security of Radioactive Sources, published as IAEA/CODEOC/2004 in January 2004, provides guidance on how States can safely and securely manage radioactive sources that may

¹⁵ Criticality and safeguard issues will need to be considered for multiples of D.

pose a significant risk. The concept of such an international undertaking on the safety and security of radioactive sources was highlighted in the major findings of the International Conference on the Safety of Radiation Sources and Security of Radioactive Materials held in Dijon, France, in September 1998. Following that conference, the IAEA Board of Governors requested the Director General to initiate exploratory discussions relating to an international undertaking in the areas of the safety and security of radiation sources. This request was reflected in an Action Plan on the Safety of Radiation Sources and Security of Radioactive Materials, with the Secretariat organizing a series of open-ended meetings of technical and legal experts nominated by Member States to further explore the concept of such an undertaking. Noting comments made during meetings of the Board of Governors, the experts agreed that any international undertaking should, for the present, be in the form of a 'code of conduct'. The text of a Code of Conduct on the Safety and Security of Radioactive Sources was accordingly developed.

Steps to strengthen the provisions of the Code were subsequently initiated following the International Conference of National Regulatory Authorities with Competence in the Safety of Radiation Sources and the Security of Radioactive Material held in Buenos Aires in December 2000. Moreover, growing international concern about the security of radioactive sources after the events of 11 September 2001 led to a number of issues being considered further by technical and legal experts. Furthermore, the International Conference on Security of Radioactive Sources held in Vienna in March 2003 made recommendations regarding additional actions that might be needed.

In June 2003, political support for implementing the revised Code was given in a statement on 'Non Proliferation of Weapons of Mass Destruction — Securing Radioactive Sources' made by the Group of Eight at its summit in Evian, France.

In July 2003, a group of technical and legal experts reached consensus on a revised text for the Code. Subsequently, the General Conference, in resolution GC(47)/RES/7.B, urged each State:

"to write to the Director General that it fully supports and endorses the IAEA's efforts to enhance the safety and security of radioactive sources, is working toward following the guidance contained in the IAEA Code of Conduct on the Safety and Security of Radioactive Sources, and encourages other countries to do the same".

Since then, many States have written to the Director General as urged by the General Conference in that resolution.¹⁶

The general objective of the Code is to achieve a high level of safety and security of radioactive sources that may pose a significant risk, which are referred to in Annex I to the Code. The Code includes guidance on general basic principles, legislation and the regulatory body, with paragraphs 23–29 containing specific guidance on the import and export of radioactive sources.

When the text of the Code of Conduct was approved by the Board of Governors prior to the September 2003 session of the General Conference, the Board's Chairperson stated that "there were still concerns regarding the import and export of radioactive sources. That matter needed to be further explored and some guidance developed." Accordingly, the Secretariat

convened open-ended groups of technical and legal experts to develop such guidance. In July 2004, the experts reached consensus on the text of the Guidance on the Import and Export of Radioactive Sources. That text was approved by the Board of Governors on 14 September 2004. When the Board approved the text, the Chairman, summing up, said that:

"[S]everal members had expressed the view that, while recognizing the importance of providing guidelines on the import and export of radioactive sources, those guidelines were voluntary in nature and should not impede international cooperation or commerce. They had underlined that the self assessment questionnaire mentioned in paragraph 18 of document GOV/2004/62 was also voluntary in nature.

"Several members had emphasized the importance of the guidelines, and they had stressed the need to apply them as soon as possible.

"The Board had underlined the importance of exporting States in applying the Guidance, and in particular paragraphs 8.c and 11.c, carrying out the information exchange and consultations set out in paragraph 21 of the Guidance.

"He accordingly took it that the Board approved the draft Guidance contained in Annex 1 to document GOV/2004/62 and requested the Director General to transmit it to the General Conference with a recommendation that the Conference endorse it and encourage its wide implementation; and to issue it as guidance supplementary to the Code of Conduct, and to include in its foreword the Board's understanding expressed above that exporting States in applying the Guidance, in particular paragraphs 8.c and 11.c, should carry out the information exchange and consultations set out in paragraph 21 of the Guidance."

On 24 September 2004, the General Conference, in resolution GC(48)/RES/10.D, welcomed the approval by the Board of Governors of the IAEA Code of Conduct on the Safety and Security of Radioactive Sources: Guidance on the Import and Export of Radioactive Sources, endorsed the Guidance while recognizing that it was not legally binding, noted that more than 30 countries had made clear their intention to work towards effective import and export controls by 31 December 2005, and encouraged States to act in accordance with the Guidance on a harmonized basis and to notify the Director General of their intention to do so as supplementary information to the Code of Conduct, recalling operative paragraph 6 of resolution GC(47)/RES/7.B. Also, the General Conference highlighted that the Board of Governors at its September 2004 meeting had stressed that it was important that exporting States, in applying the Guidance on the Import and Export of Radioactive Sources, in particular paragraphs 8(c) and 11(c), carry out the information exchange and consultations set out in paragraph 21 of the Guidance.

The text of the Guidance on the Import and Export of Radioactive Sources, as approved by the Board of Governors and endorsed by the General Conference, was published in 2005. Paragraph 20 of the Guidance provides for a review and, if appropriate, a revision of the text approximately five years after publication. In May 2010, the Secretariat convened an open-ended meeting of technical and legal experts for information sharing on the implementation by States of the Code of Conduct and the Guidance. The meeting recommended that a process for the review and revision of the Guidance be initiated, that such a process include an initial consultants meeting, and that the recommendations of that meeting be submitted to an open-ended meeting in mid-2011 and eventually incorporated into the text of the Guidance by the Secretariat. In January 2011, the Secretariat convened a consultants meeting to produce a draft revised version of the Guidance, which was subsequently circulated for

¹⁶ The current list of States that have written to the Director General is available on the home page of the IAEA's Division of Radiation, Transport and Waste Safety: www-nns.iaea.org/home/rtws.asp

comment to all Member States. At an open-ended meeting of technical and legal experts held from 30 May to 1 June 2011, consensus was reached on the draft revised text of the Guidance. That revised text was approved by the Board of Governors on 12 September 2011. On 21 September 2011, the General Conference, in resolution GC(55)/RES/9, endorsed the revised Guidance on the Import and Export of Radioactive Sources contained in document GC(55)/11, and noted that the revision of the Guidance did not require States which have previously notified the Director General of their intention to act in accordance with the Guidance to do so again and encouraged other States to make such a notification.

The text of the revised Guidance on the Import and Export of Radioactive Sources, as approved by the Board of Governors and endorsed by the General Conference, is presented in this publication as supplementary guidance to the Code of Conduct on the Safety and Security of Radioactive Sources.

GUIDANCE ON THE IMPORT AND EXPORT OF RADIOACTIVE SOURCES

I. PREAMBLE

During meetings on the development and approval of the non-legally binding *Code of Conduct on the Safety and Security of Radioactive Sources* (hereinafter referred to as the Code), some Member States requested guidance on implementing the Code, particularly in relation to the import and export of radioactive sources. Therefore, this non-legally binding Guidance was developed in 2004 by Member States to support the import and export provisions of the Code and was first published in 2005. As envisaged in its paragraph 20, the Guidance was reviewed and revised in 2011. States recognize the importance of IAEA programmes designed to assist them in strengthening their national infrastructure for the control of radioactive sources. States further recognize that participation in these programmes contributes towards States following the provisions of the Code and this Guidance.

II. OBJECTIVE

1. The objective of this Guidance is to improve the safety and security of imports and exports of radioactive sources in accordance with the provisions laid down in paragraphs 23–29 of the Code. With this objective in mind, this Guidance is not intended to impede international cooperation or commerce, as long as these do not contribute to the use of such sources for purposes that threaten safety and security. Exporting and importing States should aim to follow this Guidance when deciding whether or not to authorize exports and imports of Category 1 and 2 sources. States should consider this Guidance in a manner consistent with their national legislation and relevant international commitments.

III. SCOPE

2. This Guidance applies to Category 1 and 2 sources within the scope of the import and export provisions of the Code. This Guidance does not apply to sources or programmes that are not covered by the Code, such as nuclear material, as described in its paragraph 3, or radioactive sources within military or defence programmes, as described in its paragraph 4.

IV. DEFINITIONS

3. The terms used in this Guidance have the same meanings as those terms defined in the Code, unless otherwise defined herein.

(a) “Category 1 source(s)” means radioactive sources in Category 1 of Table I of Annex I of the Code.

(b) “Category 2 source(s)” means radioactive sources in Category 2 of Table I of Annex I of the Code.

(c) “Code” means the IAEA Code of Conduct on the Safety and Security of Radioactive Sources (IAEA/CODEOC/2004).

(d) “Export” means the physical transfer, originating from an exporting State, into an importing State or to a recipient in an importing State, of one or more radioactive source(s) covered by this Guidance.

(e) “Exporting facility” means the natural or legal person in an exporting State from which one or more radioactive source(s) are exported to an importing State or to a recipient in an importing State.

(f) “Exporting State” means the State of origin of an export of one or more radioactive source(s) to an importing State or a recipient in an importing State.

(g) “Import” means the physical transfer, into an importing State or to a recipient in an importing State, originating from an exporting State, of one or more radioactive source(s) covered by this Guidance.

(h) “Importing State” means the State of final destination for a physical transfer of one or more radioactive source(s) from an exporting State or an exporting facility.

(i) “Recipient” means the natural or legal person in an importing State that receives one or more radioactive source(s) exported by an exporting State or an exporting facility in the exporting State.

V. POINT OF CONTACT

4. Each State should nominate a point of contact, which could be a person or a position, for the purpose of facilitating the export and/or import of radioactive sources in accordance with the Code and this Guidance. If more than one point of contact is designated by a State, the State should indicate which point of contact should be contacted under which circumstances. States should provide the details of these points of contact to the IAEA.

VI. APPLICATION OF THIS GUIDANCE

5. This Guidance provides a common framework for the import and export of Category 1 and 2 sources. States may also apply this framework to other radioactive sources, or may apply conditions in addition to the provisions of this Guidance. States may also consider this Guidance in the context of an export or import of an aggregation of sources that may pose a risk similar to Category 1 or 2 sources (see paragraph 3.5 of *Categorization of Radioactive Sources*, IAEA Safety Standards Series No. RS-G-1.9, for additional information on aggregation of sources). This Guidance should not be construed to amend or supersede applicable guidance under other multilateral import and export arrangements, in particular those established by regional organizations of an integration or other nature, provided that any such organization is constituted by sovereign States. States should interpret this Guidance in accordance with other initiatives that promote non-proliferation, nuclear safety and security, and the prevention of malicious acts using radioactive sources. In the application of the Guidance, the establishment and use of bilateral arrangements between the exporting and importing States is encouraged.

VII. EXPORT OF CATEGORY 1 SOURCES

6. Each State should establish procedures for the authorization and control of exports of Category 1 sources. These procedures should cover the evaluation by the exporting State of the application for an export authorization submitted by the exporting facility; obtaining the consent of the importing State prior to authorizing the export; and providing notification to the importing State prior to the specific shipments (see paragraphs 7–9). Each State should have appropriate measures in place for enforcing these procedures. In cases of exceptional circumstances, as described in paragraphs 15 and 16,

these procedures should be followed to the fullest extent possible.

EVALUATION OF APPLICATIONS FOR EXPORT AUTHORIZATION

7. In deciding whether to authorize an export of one or more Category 1 source(s), the exporting State should:

(a) Satisfy itself, in so far as practicable, that the recipient is authorized by the importing State to receive and possess the source(s) in accordance with its laws and regulations. This review by the exporting State should be based on, but not limited to, a confirmation from the importing State that the recipient is authorized to receive and possess the source(s) to be exported, or a copy of the recipient authorization. If the latter, the exporting State should review the following information:

- Name of the recipient;
- Recipient location and legal address or principal place of business;
- Relevant radionuclides and activity (in Bq);
- Intended end-use(s) of the source(s); and
- Expiry date (if any) of the recipient authorization.

(b) Satisfy itself, in so far as practicable, that the importing State has the appropriate technical and administrative capability, resources and regulatory structure needed for the management of the source(s) in a manner consistent with the provisions of the Code. This review by the exporting State should be based on whether the importing State has established a regulatory framework covering at least Category 1 sources, which is in place and operational, by:

- (i) Promulgating radiation protection legislation and regulations;
- (ii) Designating and empowering a regulatory body;
- (iii) Establishing a national register or inventory of radioactive sources; and
- (iv) Establishing a system for the notification, authorization and control of radioactive sources.

In addition to the above, the exporting State may consider the following information, if provided to, and made available by, the IAEA with the consent of the importing State:

- The importing State's responses to the Importing and Exporting States Questionnaire (attached in Annex I and described in paragraph 18);
- Whether the importing State has written to the Director General indicating that it is working towards following the guidance contained in the Code; and
- Whether the importing State participates in IAEA programmes designed to assist States in strengthening their national infrastructure for the control of radioactive sources (see paragraph 19).

(c) Consider, on the basis of the available information:

- (i) Whether the recipient has been engaged in clandestine or illegal procurement of radioactive sources;
- (ii) Whether an import or export authorization for radioactive sources has been denied to the recipient or importing State, or whether the recipient or importing State has diverted for purposes inconsistent with the Code any import or export of radioactive sources previously authorized; and
- (iii) The risk of diversion or malicious acts involving radioactive sources.

REQUEST FOR CONSENT

8. In requesting consent from the importing State prior to the shipment of one or more Category 1 source(s), the exporting State should provide to the importing State the following information in writing:

- Name of the recipient;
- Recipient location and legal address or principal place of business;
- Intended end-use(s) of the source(s);
- Radionuclides and activity (in Bq) on a date specified by the exporting State;
- A unique identifier for the request for consent;
- A suggested timeframe for responding to the request for consent; and
- If available, the estimated time period of the export, the number and unique identifier(s) of the source(s).

NOTIFICATION PRIOR TO SHIPMENT

9. If, after considering the information in paragraph 7, and receiving consent pursuant to paragraph 8, the exporting State decides to authorize the export, it should take appropriate steps to ensure that:

- (a) The export of the source is conducted in a manner consistent with existing relevant international standards relating to the transport of radioactive materials; and
- (b) The importing State is notified in advance of each shipment of the following information in writing:

- Estimated date of export;
- Name of the exporting facility;
- Name of the recipient;
- Radionuclides and activity (in Bq) on a date specified by the exporting State; and
- The number of radioactive sources, their aggregated activity and, if available, their unique identifiers.

This notification may originate from the exporting State or exporting facility. If the notification originates from the exporting facility, a copy should be provided to the exporting State. This notification should be accompanied by a copy of the consent provided under paragraph 14(b), if available, and should, to the extent practicable, take place at least seven calendar days in advance of shipment. Timelines for submission of notifications may be specified, including where appropriate in bilateral arrangements between the exporting and importing States.

VIII. EXPORT OF CATEGORY 2 SOURCES

10. Each State should establish procedures for the authorization and control of exports of Category 2 sources. These procedures should cover the evaluation by the exporting State of the application for an export authorization submitted by the exporting facility; and providing notification to the importing State prior to the specific shipments (see paragraphs 11 and 12). Each State should have appropriate measures in place for enforcing these procedures. In cases of exceptional circumstances, as described in paragraphs 15 and 16, these procedures should be followed to the fullest extent possible.

EVALUATION OF APPLICATIONS FOR EXPORT AUTHORIZATION

11. In deciding whether to authorize an export of one or more Category 2 source(s), the exporting State should:

(a) Satisfy itself, in so far as practicable, that the recipient is authorized by the importing State to receive and possess the source(s) in accordance with its laws and regulations. This review by the exporting State should be based on, but not limited to, a confirmation from the

importing State that the recipient is authorized to receive and possess the source(s) to be exported, or a copy of the recipient authorization. If the latter, the exporting State should review the following information:

- Name of the recipient;
- Recipient location and legal address or principal place of business;
- Relevant radionuclides and activity (in Bq);
- Intended end-use(s) of the source(s); and
- Expiry date (if any) of the recipient authorization.

The exporting State may permit the exporting facility to conduct the review under this subparagraph instead of the exporting State.

(b) Satisfy itself, in so far as practicable, that the importing State has the appropriate technical and administrative capability, resources and regulatory structure needed for the management of the source(s) in a manner consistent with the provisions of the Code. This review by the exporting State should be based on whether the importing State has established a regulatory framework covering at least Category 1 and 2 sources, which is in place and operational, by:

- (i) Promulgating radiation protection legislation and regulations;
- (ii) Designating and empowering a regulatory body;
- (iii) Establishing a national register or inventory of radioactive sources; and
- (iv) Establishing a system for the notification, authorization and control of radioactive sources.

In addition to the above, the exporting State may consider the following information, if provided to, and made available by, the IAEA with the consent of the importing State:

- The importing State's responses to the Importing and Exporting States Questionnaire (attached in Annex I and described in paragraph 18);
- Whether the importing State has written to the Director General indicating that it is working towards following the guidance contained in the Code; and
- Whether the importing State participates in IAEA programmes designed to assist States in strengthening their national infrastructure for the control of radioactive sources (see paragraph 19).

(c) Consider, on the basis of the available information:

- (i) Whether the recipient has been engaged in clandestine or illegal procurement of radioactive sources;
- (ii) Whether an import or export authorization for radioactive sources has been denied to the recipient or importing State, or whether the recipient or importing State has diverted for purposes inconsistent with the Code any import or export of radioactive sources previously authorized;
- (iii) The risk of diversion or malicious acts involving radioactive sources.

NOTIFICATION PRIOR TO SHIPMENT

12. If, after considering the information in paragraph 11, the exporting State decides to authorize the export, it should take appropriate steps to ensure that:

- (a) The export of radioactive source(s) is conducted in a manner consistent with existing relevant international standards relating to the transport of radioactive materials; and
- (b) The importing State is notified in advance of each shipment with the following information in writing:

- Estimated date of export;
- Name of the exporting facility;
- Name of the recipient;
- Radionuclides and activity (in Bq) on a date specified by the exporting State; and
- The number of radioactive sources, their aggregated activity and, if available, their unique identifiers.

This notification may originate from the exporting State or exporting facility. If the notification originates from the exporting facility, a copy should be provided to the exporting State. To the extent practicable, this notification should take place at least seven calendar days in advance of shipment. Timelines for submission of notifications may be specified, including where appropriate in bilateral arrangements between the exporting and importing States.

IX. IMPORT OF CATEGORY 1 AND CATEGORY 2 SOURCES

13. Each State should establish procedures for the authorization and control of imports of Category 1 and 2 sources. Each State should have appropriate measures in place for enforcing these procedures. In deciding whether to authorize an import of such a source or sources, the importing State should:

(a) Only do so if the recipient is authorized to receive and possess the source(s) in accordance with the laws and regulations of the importing State.

(b) Satisfy itself that it has the appropriate technical and administrative capability, resources and regulatory structure needed for the management of the source(s) in a manner consistent with the provisions of the Code. This consideration should be based on whether the importing State has established a regulatory framework covering at least Category 1 and 2 sources, which is in place and operational, by:

- (i) Promulgating radiation protection legislation and regulations;
- (ii) Designating and empowering a regulatory body;
- (iii) Establishing a national register or inventory of radioactive sources; and
- (iv) Establishing a system for the notification, authorization and control of radioactive sources.

(c) Consider on the basis of the available information:

- (i) Whether the recipient has been engaged in clandestine or illegal procurement of radioactive sources;
- (ii) Whether an import or export authorization for radioactive sources has been denied to the recipient, or whether the recipient has diverted for purposes inconsistent with the Code any import or export of radioactive sources previously authorized;
- (iii) The risk of diversion or malicious acts involving radioactive sources.

If, after considering the information in paragraph 13, the importing State decides to authorize the import, it should take appropriate steps to ensure that:

- (a) A copy of the recipient authorization, or the importing State's confirmation that the recipient is authorized to receive and possess the source(s) to be exported, is provided to the exporting State or exporting facility in cases where it is requested (see paragraphs 7 and 11);
- (b) A response to the request for consent is provided to the exporting State in cases where it is requested (see paragraph 8); and
- (c) To the extent within the responsibility of the importing State, the import of radioactive sources is conducted in a manner consistent with existing relevant international standards relating to the transport of radioactive materials.

X. EXCEPTIONAL CIRCUMSTANCES

15. If the provisions of paragraphs 24 and 25 of the Code (see paragraphs 6–14 above) cannot be followed with respect to a particular import or export, the States involved should consider whether the import or export may be authorized in exceptional circumstances. In doing so, those States may consider the risks and benefits of such an import or export. If it is decided that such “exceptional circumstances” do exist, the exporting State should obtain consent from the importing State, in accordance with paragraph 26 of the Code, and approval of such an export should otherwise satisfy the exporting State’s authorization process, to the extent possible.

Exceptional circumstances should be considered as:

- (a) Cases of considerable health or medical need, as acknowledged by the importing State and by the exporting State. In such cases, the importing and exporting States should, to the extent practicable, make arrangements prior to the authorization of the export for the safe and secure management of the source(s) during and at the end of their useful life;
- (b) Cases where there is an imminent radiological hazard or security threat presented by one or more radioactive source(s); or
- (c) Cases in which the exporting facility or exporting State maintains control of radioactive source(s) throughout the period that the source(s) are outside of the exporting State, and the exporting facility or exporting State removes the source(s) at the conclusion of this period.

REQUEST FOR CONSENT

16. In requesting consent from the importing State prior to the shipment of one or more Category 1 or 2 source(s) under exceptional circumstances, the exporting State should provide to the importing State the following information in writing:

- Name of the recipient;
- Recipient location and legal address or principal place of business;
- Intended end-use(s) of the source(s);
- Radionuclides and activity (in Bq) on a date specified by the exporting State;
- A unique identifier for the request for consent;
- A suggested timeframe for a response on the request for consent; and
- If available, the estimated time period

XI. TRANSIT AND TRANSSHIPMENT

17. Although the transport of radioactive sources through the territory of a transit or transshipment State is not subject to the authorization procedures outlined in paragraphs 24 and 25 of the Code, and therefore not subject to the provisions of this Guidance, States should consider paragraph 29 of the Code, which states that the transport of radioactive sources through the territory of a transit or transshipment State should be conducted in a manner consistent with existing relevant international standards relating to the transport of radioactive materials, in particular paying careful attention to maintaining continuity of control during international transport.

XII. GENERAL

18. To facilitate the timely review of export requests and to further harmonize the application of this Guidance, each State is urged to make available to the IAEA its responses to the Importing and Exporting States Questionnaire (see Annex I) and an update of those responses if they change, as soon as practicable after such changes. Those responses should, with the consent of the State concerned, be made available to the points of contacts of other States.

19. The IAEA is requested to make available in a timely manner, subject to the consent of the States concerned, as appropriate and subject to the availability of funds:

- (a) a list of States’ points of contact as described in paragraph 4;
- (b) the responses to the Importing and Exporting States Questionnaire (see Annex I);
- (c) a list of States that have written to the Director General that they are working towards following the guidance contained in the Code; and
- (d) any additional information resulting from IAEA programmes designed to assist States in strengthening their national infrastructure for the control of radioactive sources which a particular State may wish to provide.

The IAEA should send periodic reminders requesting updates of the information specified in points (a) and (b) of this paragraph. The provisions of paragraph 17 of the Code concerning confidentiality should apply to States receiving this information. The IAEA is requested to protect the confidentiality of the responses to the Importing and Exporting States Questionnaire and any other information it receives in confidence pursuant to this Guidance by taking appropriate security measures, including the use of secure, password protected web sites.

20. This Guidance should be reviewed and, if appropriate, revised by Member States every five years, or earlier if necessary. However, the absence of a review of or a revision to this Guidance should not be a basis for the authorization or denial of exports and imports of radioactive sources.

21. In furtherance of harmonized action under this Guidance, States should, as necessary and appropriate, exchange relevant information and consult with other States, including as part of bilateral arrangements. States understand that the provisions of paragraph 17 of the Code concerning confidentiality should apply where appropriate with respect to information provided or exchanged pursuant to this Guidance, including information made available to the IAEA that was provided to it in confidence by importing or exporting States.

22. In the interests of international safety and security, the cooperation of all States in following this Guidance would be welcome.

ANNEX I: IMPORTING AND EXPORTING STATES QUESTIONNAIRE

To facilitate the timely review of export authorizations and to further harmonize the application of this Guidance, States are requested to make available to the IAEA through official channels their responses to this Importing and Exporting State questionnaire, as well as any updates of those responses. Those responses should, with the consent of the State concerned, be made available to the points of contact of other States. Paragraph 17 of the Code concerning confidentiality should apply to States receiving this information.

States are requested to answer the following questions, and may also provide explanations for their responses.

- (i) Has your State implemented the following essential elements of a national regulatory framework covering at least Category 1 and 2 sources?
- (ii) Does your State consent to the release of the answers to this questionnaire to the points of contact of other States? YES/NO

Please provide any additional comments or information to expand on your responses to one or more of the above questions.

Essential elements of the national regulatory framework	IMPLEMENTED		
	Fully	Partially	Not Yet
1. Legislation addressing safety and security of sources, in a manner consistent with paragraphs 18 and 19 of the Code, is in place.			
2. Regulations addressing safety and security of sources, in a manner consistent with paragraphs 18 and 19 of the Code, are in place.			
3. A regulatory body that establishes regulations and issues guidance relating to the safety and security of radioactive sources, in a manner consistent with paragraphs 19(a) and 20 of the Code, is in place.			
4. The regulatory body has sufficient staffing and training to discharge its regulatory functions in a manner consistent with paragraph 21(a) of the Code.			
5. The regulatory body has sufficient resources to regulate the safety and security of radioactive sources in a manner consistent with paragraph 21(b) and (c) of the Code.			
6. A national registry or inventory of radioactive sources, in a manner consistent with paragraph 11 of the Code, has been established and is being maintained.			
7. An effective national legislative and regulatory system of control over the management and protection of radioactive sources, in a manner			

consistent with paragraphs 8 and 19(f) of the Code, is in place.			
8. A system for authorization including the export and import of radioactive sources, in a manner consistent with paragraphs 19(c), 20(d) and (e), and 22(a) of the Code, is in place.			
9. A system of inspection for the verification of compliance with regulatory requirements, in a manner consistent with paragraphs 20(h) and 22(i) of the Code, is in place.			
10. A system for the enforcement of regulatory requirements, in a manner consistent with paragraphs 20(i) and 22(j) of the Code, is in place.			
11. The regulatory body liaises and coordinates with other national bodies in all areas relating to the safety and security of radioactive sources, in a manner consistent with paragraph 20(m) of the Code.			
12. The regulatory body liaises with regulatory bodies of other countries and with international organizations dealing with the safety and security of radioactive sources, in a manner consistent with paragraph 20(n) of the Code.			
13. The regulatory body ensures that arrangements are made for the safe management and secure protection of radioactive sources, once they have become disused, in a manner consistent with paragraphs 20(e) (vii) and 22(b) of the Code.			

Name, Signature, Position, Organization and Date

**International Conference on Nuclear Security:
Enhancing Global Efforts
Ministerial Declaration**

[July 2013]

We, Ministers of the Member States of the International Atomic Energy Agency (IAEA), gathered at the International Conference on Nuclear Security: *Enhancing Global Efforts*, convened by the Director General of the IAEA and open to all States, remain concerned about the threat of nuclear and radiological terrorism and of other malicious acts or sabotage related to facilities and activities involving nuclear and other radioactive material.

We welcome the substantial progress that has been made in recent years in strengthening nuclear security worldwide, including the establishment and implementation of various binding and non-binding international instruments. We recognize the contributions made to this progress by the United Nations, the IAEA and other relevant international organizations and note the role that international and inclusive processes, initiatives and summits could play in facilitating synergy and cooperation in the area of nuclear security. We acknowledge, however, that more needs to be done to further strengthen nuclear security worldwide.

We encourage all States to maintain highly effective nuclear security, including physical protection, for all nuclear and other radioactive material, their transport, use and storage and their associated facilities, as well as protecting sensitive information and maintaining the necessary nuclear security systems and measures to assess and manage their nuclear security effectively.

In the light of the above, we:

1. Assert that the responsibility for nuclear security within a State rests entirely with that State.
2. Stress the importance of international cooperation in supporting States, upon their request, to fulfil their nuclear security responsibilities and obligations and emphasize the need for the involvement of all Member States of the Agency in its nuclear-security-related activities and initiatives.
3. Call upon all States to ensure that measures to strengthen nuclear security do not hamper international cooperation in the field of peaceful nuclear activities.
4. Recognize the threat to international security posed by the potential theft and/or smuggling of nuclear material, and affirm in this regard the fundamental responsibility of States, consistent with their respective national and international obligations, to maintain effective security of all nuclear material under their control, which includes nuclear material used for military purposes.
5. Recall the statement in UN General Assembly Resolution 67/44 on *Measures to prevent terrorists from acquiring weapons of mass destruction* "Emphasizing that progress is urgently needed in the area of disarmament and non-proliferation in order to maintain international peace and security and to contribute to global efforts against terrorism", and recognize that there is a need to make further progress in this regard.
6. Recognize and support the IAEA's continuing work to assist, upon request, States' efforts to establish effective and sustainable national nuclear security regimes, and note the important role that Integrated Nuclear Security Support Plans (INSSPs) play in this regard. We encourage States to make further use of

such assistance where it is needed, and similarly encourage States in a position to do so to make available such assistance.

7. Encourage efforts to promote international exchange of experience on ways to develop, foster and maintain a robust national nuclear security culture, compatible with the State's nuclear security regime. We note the potential contribution of industry initiatives in this regard.
8. Take note of existing regional initiatives in nuclear security and encourage States to promote such initiatives where these can contribute to improving the coordination and sustainability of national and global efforts to enhance nuclear security.
9. Invite States that have not yet done so to become party to and fully implement the Convention on the Physical Protection of Nuclear Material (CPPNM) and its 2005 Amendment and the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) and, in this regard, encourage the IAEA and States to continue efforts to promote the entry into force of the 2005 Amendment to the CPPNM at the earliest possible date.
10. Invite States that have not yet done so to make a political commitment to implement the non-legally-binding Code of Conduct on the Safety and Security of Radioactive Sources and supplementary Guidance on the Import and Export of Radioactive Sources, and encourage all States to implement these instruments and to maintain effective security of radioactive sources throughout their life cycle.
11. Encourage the IAEA, in consultation with Member States, to consider ways of further promoting the exchange, on a voluntary basis, of information on the implementation of the legal instruments relevant to nuclear security.
12. Encourage States to further minimize the use of high enriched uranium on a voluntary basis and to use low enriched uranium where technically and economically feasible.
13. Encourage States to use, on a voluntary basis, the IAEA's nuclear security advisory services and peer reviews based on internationally accepted guidance and tailored to national needs, welcome the increased recognition of the value of IAEA International Physical Protection Advisory Service (IPPAS) missions by Member States, and encourage the IAEA to foster the sharing of experience and lessons learned from these missions.
14. Recognize the importance of continuing efforts to address the threats posed by illicit trafficking of nuclear and other radioactive material, affirm in this regard the IAEA Incident and Trafficking Database (ITDB) as the international repository of information on incidents and illicit trafficking, and encourage all States to join and participate actively in the ITDB programme.
15. Welcome the IAEA's work in the area of nuclear forensics and encourage States which have not yet done so to establish, where practical, national nuclear forensics databases drawing on assistance, upon request, from the IAEA and relevant regional initiatives as necessary.
16. Recognize that nuclear security and safety have the common aim of protecting human health, society and the environment, while acknowledging the

distinctions between the two areas, and affirm the importance of coordination in this regard.

17. Affirm the central role of the IAEA in strengthening the nuclear security framework globally and in leading the coordination of international activities in the field of nuclear security, while avoiding duplication and overlap.
18. Recognize the importance of the IAEA having access to appropriate resources and expertise to undertake its work, including through further voluntary contributions to the IAEA's Nuclear Security Fund by existing and new donors.
19. Welcome the IAEA's support for capacity building in States, upon request, including regulators, law enforcement agencies and industry, developed in cooperation with Member States, and recognize the importance of the collaborative International Nuclear Security Education Network (INSEN) and Nuclear Security Support Centre (NSSC) network.
20. Urge the IAEA to continue developing and publishing nuclear security guidance, and encourage all States to take the guidance into account, as appropriate, in their efforts to strengthen and continuously improve their nuclear security.
21. Note the IAEA's Nuclear Security Recommendations on physical protection of nuclear material and nuclear facilities (INFCIRC/225/Revision 5), including measures to protect against sabotage of nuclear facilities and nuclear material in use, storage, and transport, and look forward to the preparation of further guidance on their implementation including during the process of construction and maintenance of nuclear facilities.
22. Recognize the IAEA's efforts to raise awareness of the growing threat of cyber-attacks and their potential impact on nuclear security, and encourage the IAEA to make further efforts to foster international cooperation and to assist States, upon request, in this area through the establishment of appropriate guidance and by providing for its application.
23. Urge the IAEA to take due account of this declaration in finalizing its Nuclear Security Plan for 2014 to 2017.
24. Call on the IAEA to consider organizing international conferences on nuclear security every three years.

Nuclear Security Plan 2014-2017

[Reproduced from GOV/2013/42GC(57)/19,
2 August 2013]

Summary

The first concerted nuclear security plan was approved in March 2002 by the Board of Governors (GOV/2002/10), which also approved the creation of a voluntary funding mechanism, the Nuclear Security Fund (NSF). The Board approved the current Nuclear Security Plan 2010–2013 (GOV/2009/54) in September 2009. This Plan will be concluded at the end of 2013. The Agency convened the International Conference on Nuclear Security: Enhancing Global Efforts at the Agency's Headquarters from 1 to 5 July 2013. On 1 July, Ministers adopted a Declaration which, inter alia, urged the Agency to take account of the Declaration in finalizing its Nuclear Security Plan for 2014 to 2017. This Plan builds on General Conference resolutions, the Ministerial Declaration and, where appropriate, the conclusions and recommendations from the Conference. In addition, it consolidates activities set

out in the Nuclear Security Plan 2010–2013, taking into account new and modified priorities of Member States.

Recommended Action

It is recommended that the Board of Governors:

- a. Approve the Nuclear Security Plan 2014–2017;
- b. Approve the continuation of voluntary funding for the activities included in the Nuclear Security Plan 2014–2017, without targets, and call upon all Member States to continue contributing on a voluntary basis to the Nuclear Security Fund; and
- c. Transmit the Plan to the General Conference with a recommendation that the Conference takes note of the Nuclear Security Plan 2014–2017 and calls upon Member States to contribute to the Nuclear Security Fund.

A. Introduction

1. The risk that nuclear or other radioactive material could be used in criminal or intentional unauthorized acts remains a matter of concern internationally and continues to be regarded as a threat to international security¹⁷. It is well recognized that the responsibility for nuclear security¹⁸ rests entirely with each State and that appropriate and effective national systems for nuclear security are vital in facilitating the peaceful use of nuclear energy and enhancing global efforts to combat nuclear terrorism. Significant growth is anticipated over the coming years in the use of nuclear applications in general and nuclear power programmes in particular by several countries. This will require a sustained focus on nuclear security infrastructure to enable the continued secure use of the peaceful applications of nuclear energy.

2. The Agency has provided, upon request, assistance to States and supported their national efforts to establish and improve nuclear security regimes since the early 1970s when it began providing ad hoc training in physical protection. In 1975, the Agency issued Recommendations for the Physical Protection of Nuclear Material, and these have subsequently been revised five times. In 1997, following reports of illicit trafficking of nuclear and other radioactive material, the Security of Material Programme was established. The Agency's first comprehensive plan of action to protect against nuclear terrorism¹⁹ was approved in March 2002 by the Board of Governors, which at that time also approved the creation of a voluntary funding mechanism, the Nuclear Security Fund (NSF), in order to help implement the Plan. Further Nuclear Security Plans were approved by the Board of Governors in 2005²⁰ and 2009²¹.

B. Background

3. A number of developments, summarized below, occurred over the four year period of the implementation of the Nuclear Security Plan 2010–2013. Lessons learned from these developments were taken into account in drawing up the Plan set out below. In addition, the Ministerial Declaration²² and other results of the International Conference on Nuclear Security convened at

¹⁷ See, for example, the Ministerial Declaration from the International Conference on Nuclear Security: Enhancing Global Efforts, 1 July 2013 (Annex of document GOV/INF/2013/9-GC(57)/INF/6), Preamble and Para. 4.

¹⁸ Nuclear security focuses on the prevention of, detection of, and response to, criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities. (See Nuclear Security Fundamentals *Objective and Essential Elements of a State's Nuclear Security Regime*, IAEA Nuclear Security Series No. 20).

¹⁹ GOV/2002/10.

²⁰ GOV/2005/50.

²¹ GOV/2009/54-GC(53)/18.

²² Annex of document GOV/INF/2013/9-GC(57)/INF/6.

the Agency's Headquarters in Vienna on 1–5 July 2013 were taken into account, where appropriate, in finalizing the Plan.

B.1. Review of Developments 2010-2013

4. From the adoption of the Nuclear Security Plan 2010–2013 to date, a number of additional areas relevant to nuclear security have emerged. In particular, the Agency has noted a growing recognition of the need for comprehensive security systems, through an adequate and effective nuclear security infrastructure covering the entire nuclear fuel cycle, including nuclear facilities, and the whole life cycle of facilities and activities using other radioactive material. The areas of cybersecurity and nuclear forensics have also appeared as important tools that can assist States to enhance their ability to prevent and respond to a range of nuclear security events. For effective nuclear security, a well-developed nuclear security culture has been identified as fundamental. Nuclear Security Support Centres (NSSCs) have emerged as recognized comprehensive capacity building vehicles that can be valuable at the national, regional or international levels for guaranteeing sustainability of national nuclear security regimes, and for fostering the transfer of nuclear security knowledge and for exchanging best practices. Other developments during the period from 2010 to 2013 include the following:

- Sustained political attention has been paid to nuclear security. Nuclear security has continued to take a prominent position in global diplomatic activity. Statements in several fora have steadily confirmed, inter alia, that the responsibility for nuclear security within a State rests entirely with that State and that the Agency has a central role in strengthening the nuclear security framework globally, in particular through providing assistance to States, on request, and in leading the coordination of international activities in the field of nuclear security²³.
- Increased international activities in the field of nuclear security have prompted the need to ensure coordination, including with relevant United Nations bodies and other international initiatives and organizations with a view to avoiding duplication and overlap.
- The endorsement, for the first time, by the Board of Governors of the Nuclear Security Fundamentals²⁴ reflected the importance being given by the Agency's Policy Making Organs to the establishment of internationally accepted nuclear security guidance that would be available for States that wish to use such guidance to strengthen their nuclear security.
- The vulnerability of sensitive nuclear security information remained a concern to Member States, specifically information, in whatever form, including software, the unauthorized disclosure, modification, alteration, destruction, or denial of use of which could compromise nuclear security.
- Integrated Nuclear Security Support Plans (INSSPs) have become widely recognized as useful tools by States that wish to identify their nuclear security needs, as well as to coordinate improvements to their nuclear security with the Agency and potential donors²⁵.
- There has been increased involvement of Member States in the development process for international nuclear security guidance. The path has been set for the completion of the Nuclear Security Series of guidance publications through the establishment of the Nuclear Security Guidance Committee

(NSGC)²⁶, a standing Committee open to all Member States. The new review and approval process for draft guidance has confirmed the status of the Nuclear Security Series (NSS) as international consensus guidance.

- There has been growing recognition that safety measures — or the failure of such measures — could also have implications for nuclear security, and vice versa.
- A mechanism has been established, with an associated Interface Group comprising the Chairs of the Safety Standards Committees and four members of NSGC, to identify interfaces between safety and security in publications being developed in the IAEA Safety Standards Series and the IAEA Nuclear Security Series, reflecting the common overarching aims of safety and security while recognizing the distinctions between the two areas.
- International activities to strengthen the security of nuclear and other radioactive material under regulatory control and their associated facilities have made marked achievements, for instance in physical protection upgrades to nuclear facilities and to facilities housing other radioactive material.
- Increased awareness of the international community of the risks associated with nuclear and other radioactive material out of regulatory control has highlighted the need to provide further assistance to States that so request to bring such material under appropriate control. Improvement in States' abilities to detect and recover material out of regulatory control has been achieved through the donation of detection instruments to States together with associated training.
- In applying the physical protection Recommendations in Nuclear Security Series No. 13 (INFCIRC/225/Rev.5), several States have required nuclear facility operators to develop contingency plans to assist in the recovery of lost or stolen nuclear and other radioactive material as part of their national response plans.
- There have been a growing number of requests for International Physical Protection Advisory Service (IPPAS) and International Nuclear Security Service (INSServ) missions, including from States having large nuclear programmes. This points the way to such missions, while remaining voluntary, becoming widely used as an important tool to improve nuclear security and to build confidence in both the international community and the general public with regard to the effectiveness of national nuclear security regimes. In response to requests from States for a more flexible approach to such services, the Agency has developed a number of modules designed to address specific needs.
- The important, albeit modest, increase of funds provided in the Agency's Regular Budget to the nuclear security programmes and sustained support of the Nuclear Security Plan 2010–2013, in large part through extrabudgetary contributions, reflects the importance given by Agency Member States to strengthening the Agency's capacity to contribute to global efforts to achieve effective nuclear security.

B.2. Lessons Learned

- As recognized in the Nuclear Security Fundamentals, the responsibility for nuclear security within a State rests entirely with that State. However, a nuclear security event or a weakness in nuclear security measures in one State has the potential to involve or affect other States, and there is a growing recognition among States that nuclear security is a global issue that needs to be addressed on a global

²³ See, for example, paragraph 17 of the Ministerial Declaration.

²⁴ GOV/2012/39.

²⁵ See, for example, paragraph 6 of the Ministerial Declaration.

²⁶ GOV/INF/2012/3.

basis. In this context, the Agency offers an accepted global platform for the development of nuclear security guidance, and an international forum where best practice, information, education and training can be shared.

- Potential adversaries have demonstrated an ability to plan their activities globally. Therefore, those who seek to prevent and mitigate criminal or intentional unauthorized acts with global aspects must plan for, and be prepared to participate in, a global response.
- The increase in the number of States looking to institute programmes for the peaceful use of nuclear and other radioactive material calls for the planning of nuclear security at the earliest stages of development of such programmes. Nuclear security is an essential element of such programmes and should be an enabling tool rather than an impediment to the development of peaceful nuclear applications.
- Nuclear security involves entities in a State beyond the traditional Agency constituency in the planning and execution of nuclear security activities. These include, for example, customs officials, administrators of medical facilities, border guards and law enforcement organizations. Feedback from the practical use of Agency guidance will enable the sharing of best practices.
- The involvement of all Member States in Agency activities and initiatives relating to nuclear security is needed. Participation by their representatives and experts in the NSGC and in Agency-sponsored activities can involve Member States more closely and provide an opportunity for a greater sense of ownership in the development and application of nuclear security guidance documents as well as increasing their acceptance.
- Implementing sustainable nuclear security in States requires adequate time for the institutionalization of a functioning nuclear security culture. This requires a sustained commitment from all concerned.
- Consistent Agency support for the long term development of nuclear security globally will continue to depend upon the Agency having sufficient funding.

B.3. International Conference on Nuclear Security: Enhancing Global Efforts, 1-5 July 2013

5. The International Conference on Nuclear Security: Enhancing Global Efforts was convened at the Agency's Headquarters in Vienna on 1–5 July 2013. This was the first Agency conference of its type, with participation by: government ministers; senior officials and policy makers responsible for nuclear security; experts and representatives from a wide range of technical disciplines and specialist organizations that contribute to nuclear security; representatives of intergovernmental and nongovernmental organizations with relevant competences; regulatory bodies and other national competent authorities; national security and crisis management agencies; law enforcement and border control agencies; and industry and other entities engaged in activities relevant to nuclear security. The GOV/2013/42-GC(57)/19 Page 5

Conference attracted more than 1300 registered participants from 125 Member States, 34 of which were represented at ministerial level, and 21 organizations. On 1 July, Ministers adopted a Declaration which, *inter alia*, recognized and supported the Agency's continuing work to assist States, upon request, in their efforts to establish effective and sustainable national nuclear security regimes, and affirmed the Agency's central role in strengthening the nuclear security framework globally and

in leading the coordination of international activities in the field of nuclear security.

6. The six Main Sessions of the Conference covered broad areas of nuclear security at a policy-oriented level, and 12 Technical Sessions addressed a range of technical topics in nuclear security in more detail. Information on the conference can be found in document GOV/INF/2013/9-GC(57)/INF/6.

7. The Ministerial Declaration and other results of the Conference were taken into account, as appropriate, in finalizing the Plan outlined below.

C. Objective

8. The objective of the Nuclear Security Plan 2014–2017 is to contribute to global efforts to achieve effective security wherever nuclear and other radioactive material is in use, storage and/or transport, and of associated facilities by supporting States, upon request, in their efforts to meet their national responsibilities and international obligations, to reduce risks and to respond appropriately to threats.

9. In achieving this objective, the Agency will:

- Assist States, upon request, in their efforts to establish effective and sustainable national nuclear security regimes;
- Serve as the focal point for strengthening international cooperation, and for coordination of nuclear security assistance given through regional and bilateral programmes and other international initiatives;
- Enhance global nuclear security efforts by completing international guidance in the Nuclear Security Series and, upon request, supporting its implementation by States;
- Encourage and assist States to adhere to relevant international instruments and support States, upon request, in their efforts to adopt implementing national legislation;
- Build on the progress made during the implementation of the first three Nuclear Security Plans to help States sustain and further improve their national nuclear security regimes.

D. International Instruments relevant to the Nuclear Security Plan 2014-2017

10. Details of the international legal framework for nuclear security have been set out in previous Nuclear Security Plans²⁷ and Nuclear Security Reports. The framework includes legally binding and non-binding instruments adopted under Agency and other auspices. Among its nuclear security activities, the Agency facilitates adherence to and implementation of the international legal framework by assisting States, upon request, in effectively meeting their obligations under the relevant international instruments.

11. A number of international instruments make reference to the role of the Agency, which in some cases is assigned specific responsibilities. The Agency has taken account of these instruments in drawing up this Nuclear Security Plan.

12. Of particular importance is the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) which, upon its entry into force and its implementation by States Parties, will have a major impact on reducing the vulnerability of States Parties to nuclear terrorism. The Amendment extends the scope of the physical protection measures required by the CPPNM to

²⁷ For a detailed analysis see IAEA International Law Series No 4.

include nuclear facilities and nuclear material in peaceful domestic use, storage and transport as well as sabotage. It also provides for expanded cooperation between and among States regarding rapid measures to locate and recover stolen or smuggled nuclear material, mitigate any radiological consequences of sabotage and prevent and combat related offences. The Amendment also confers a number of additional functions on the Agency, which were set out in document GOV/2005/51 and approved by the Board of Governors. General Conference resolutions and the Ministerial Declaration encourage the Agency to continue its efforts to promote the entry into force of the Amendment at the earliest possible date.

E. Programme Elements and Expected Outcomes

13. The Agency believes that it should continue to use, and build upon, the methods and tools of programme implementation set out in Section E of the Nuclear Security Plan 2010–2013²⁸, taking into account new and modified priorities of Member States. Agency assistance will continue to be provided solely at the request of States, and nothing in the Plan is intended to impose obligations upon States. Proposed activities under the Plan are summarized under the following headings:

E.1. Needs Assessment, Information and Cybersecurity

14. The availability of correct and adequate information continues to be a key factor in the Agency's implementation of its programme. Needs assessments, evaluations, analysis, and feedback from implementation of activities provide valuable input to programme prioritization and implementation. The provision of nuclear security related information that supports the development of national nuclear security regimes is important. Assistance will be provided to States through the development, at their request and with their cooperation, of Integrated Nuclear Security Support Plans (INSSPs). The Agency will also conclude the development of the Nuclear Security Information Management System (NUSIMS) self-assessment methodology for use by States that so decide. The important role of INSSPs was noted in paragraph 6 of the Ministerial Declaration. The proposed activities in cybersecurity are in line with paragraph 22 of the Ministerial Declaration.

Objectives

- To maintain a comprehensive information system that supports effective implementation of the Nuclear Security Plan by assisting the Agency in the prioritization of nuclear security improvements and in the better identification of resources required to implement the Plan.

Outcomes

- A secure information system that will provide the Secretariat with accurate, relevant information on a real time basis to effectively support its activities for assisting States. Comprehensive and up-to-date databases and tools that meet the needs of States.
- Improved cybersecurity capabilities at the State and facility level to support the prevention and detection of, and response to, information security incidents that have the potential to either directly or indirectly adversely affect nuclear safety and nuclear security.

- Better identification, where relevant, by States of possible improvements in their information collation and assessment systems.
- Enhanced tools for programme evaluation and monitoring.
- Better awareness, where relevant, among States of nuclear security needs through the use, on a voluntary basis, of INSSPs.
- Timely submission of reports to the Agency's Policy-Making Organs and Member States.

Performance Indicators

- Number of INSSPs agreed and implemented by States.
- Number of users on the Nuclear Security Information Portal (NUSEC).
- Number of States using NUSIMS and feedback from those States.
- Production of reports to a standard that meets the requirements of the Policy-Making Organs.
- Annual review of priorities and of resources required to implement activities under the Plan.

E.2. External Coordination

15. Member States have recognized through General Conference resolutions the central role of the Agency in ensuring coordination of international activities in nuclear security while avoiding duplication and overlap. Similar views were expressed in paragraph 17 of the Ministerial Declaration.

Objectives

- To ensure effective coordination of international activities in the field of nuclear security, while avoiding duplication and overlap, and to increase awareness of Agency nuclear security activities

Outcomes

- Enhanced coordination between the activities of the Agency nuclear security programme and those of other initiatives, reducing duplication and overlap.
- Greater awareness of the need to maintain and continuously improve nuclear security in an effective and efficient manner.
- Increased awareness worldwide of emerging nuclear security issues and international best practice through increased cooperation with others (e.g. governmental and non-governmental organizations and initiatives).

Performance Indicators

- Frequency and effectiveness of technical exchanges with relevant international and regional organizations and initiatives whose activities contribute to nuclear security globally.
- Number of States and organizations participating in technical exchanges and collaborative networks in the area of nuclear security.

E.3. Supporting the Nuclear Security Framework Globally

16. The Agency supports the international legal framework for nuclear security through the promotion of the relevant legally binding and non-binding instruments under Agency auspices and the development of comprehensive guidance in the Nuclear Security Series in accordance with the publications plan agreed by the NSGC. The importance of strengthening the framework was indicated in paragraphs 9, 10, 11, 17, and 20 of the Ministerial Declaration.

²⁸ GOV/2009/54-GC(53)/18. Methods and tools comprise, nuclear security guidance; legislative assistance and facilitation of adherence to and implementation of international instruments; nuclear security peer reviews and advisory services; sustainability support; research and development; integrated nuclear security support plans; information management and collection; cooperation and networking; risk reduction.

Objective

- To assist in the development and promotion of a comprehensive and global nuclear security framework, and in particular adherence to and implementation of the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM), including through the provision of corresponding legislative assistance.
- To produce comprehensive guidance for issue in the IAEA Nuclear Security Series and to support, upon request, its implementation by States.

Outcomes

- Wider adherence to, and effective implementation by States of, the relevant legally binding and non-binding international legal instruments, focusing on the entry into force of the 2005 Amendment to the CPPNM.
- Improved nuclear security through the timely and systematic development of up-to-date and comprehensive internationally accepted nuclear security guidance.
- Improved nuclear security through the broad voluntary application of the internationally accepted guidance issued in the Nuclear Security Series.
- Better understanding of the use made by States of guidance issued by the Agency and continuous improvement of the guidance.

Performance Indicators

- Number of States adhering to international legal instruments on nuclear security.
- Number of guidance publications in the Nuclear Security Series approved and produced in accordance with the publications plan agreed with NSGC.

E.4. Coordinated Research Projects

17. The Agency promotes research and development to support effective nuclear security through coordinated research projects (CRPs) that involve a broad range of experts and institutions of a broad range of States. Recent and current CRPs address topics such as the application of nuclear forensics techniques in combating illicit trafficking of nuclear and other radioactive material and the development of a nuclear security assessment methodology for facilities and transport. Continued development and implementation of appropriate CRPs will promote improvements in current technology, international best practice, confidence building via peer-to-peer networking, and increased competence among nuclear security practitioners. The results of CRPs will provide input to the Agency's nuclear security support activities, including the development and application of guidance in the IAEA Nuclear Security Series.

Objective

- To provide technical support and confidence building networks, available to all, in order to promote information exchange on the results of research projects and to support the Nuclear Security Series guidance publications.

Outcomes

- Availability of R&D results that contribute to the process of developing and revising IAEA

Nuclear Security Series publications and its implementation.

- Enhanced technical capabilities in States to sustain national nuclear security regimes.
- Promotion and sharing of best practice.

Performance Indicators

- Number of researchers and institutions involved in CRPs and Member States supporting the CRPs.
- Number of CRPs that produce documented results that contribute to the process of establishing and revising guidance on nuclear security and the application of the guidance.

E.5. Assessment through Self-assessment and/or through Peer Review Missions

18. There has been greater appreciation of the value of peer review and advisory services to assist States, upon request, in sustaining and improving their national nuclear security regimes. Such increased recognition of the value of the International Physical Protection Advisory Service (IPPAS) service was welcomed in paragraph 13 of the Ministerial Declaration, while recognizing the voluntary nature of the Agency's advisory services. Through operative paragraph 20 of resolution GC(56)/RES/10, States were encouraged to use the advisory services for exchanges of views and advice on nuclear security measures. Activities will also, as encouraged in operative paragraph 21 of the same resolution, establish and promote self-assessment methodologies, in cooperation with Member States.

Objective

- To assist States, upon request, in improving their national nuclear security regimes for nuclear and other radioactive material and associated facilities and activities through the promotion of self-assessment and through the provision of peer reviews, based upon the relevant international instruments and internationally accepted guidance, within the timeline requested and to a standard acceptable to the requesting State.

Outcomes

- Enhanced national nuclear security regimes.
- Increased capacity of States to carry out self-assessments, including self-assessments prior to peer review missions.
- Increased effectiveness of Agency peer reviews and advisory services through the analysis of data and feedback from States.

Performance Indicators

- Number of requests from Member States for, and feedback from States on, nuclear security related peer reviews and advisory services.
- Development of self-assessment methodologies and the number of self-assessments performed by Member States using such methodologies.
- Level of acceptance and implementation of suggestions for improvement as indicated by follow-up to peer reviews and advisory services.

E.6. Human Resources Development

19. The Agency recognizes human resources development as the cornerstone of capacity building and sustainability of nuclear security skills, ensuring that, once learned, such skills are maintained, practised and appropriately shared. The Agency has a well-developed education and training programme and has placed

significant emphasis in Nuclear Security Series publications on the need for sustained education and training. The Agency's support, upon request, for capacity building in nuclear security in States was welcomed in paragraph 19 of the Ministerial Declaration. The efforts to establish a collaborative network of national Nuclear Security Support Centres and an International Nuclear Security Education Network were welcomed in preambular paragraph (p) of resolution GC(56)/RES/10, and the importance of such networks was recognized in paragraph 19 of the Ministerial Declaration. In developing such networks, information on their activities will be reported to the Policy-Making Organs through the annual Nuclear Security Report.

Objective

- To provide a coordinated education, awareness raising and training programme in nuclear security that meets the requirements and needs identified by Member States.

Outcomes

- Strengthened and sustainable capacity building in States through the implementation of a nuclear security education and training programme, available to all States, involving all competent authorities together with vocational training and academic communities and supported by the International Nuclear Security Education Network and the International Network for Nuclear Security Support Centres.
- Improved capacity in States to address recurring nuclear and radiological security issues.
- Strengthened network of nuclear security support centres through acceptance of the Agency concept of Nuclear Security Support Centres in support of sustainable nuclear security regimes.
- Completed and updated suite of training courses, based on agreed Agency guidance, covering all aspects of nuclear security, that assist States in the implementation of their responsibilities under legally binding and non-binding instruments.

Performance Indicators

- Number of persons completing educational and training courses developed by the Agency and feedback from participants on the use of skills learned.
- Number of academic institutions implementing nuclear security education programmes using the curriculum recommended by the Agency, or parts thereof.
- Number of Member States and academic institutions taking part in the Nuclear Security Support Centres and International Nuclear Security Education Network programmes.

E.7. Risk Reduction and Security Improvement

20. Raising awareness in Member States, as needed, of their national responsibilities with regard to nuclear security, including those deriving from international obligations, remains an important component of the Agency's nuclear security programme. Where appropriate, and upon request, the Agency also provides material assistance and advice to States to help them discharge these responsibilities. Activities of the types carried out under previous Nuclear Security Plans to address these issues will be continued where still needed. Such issues were identified in paragraph 4 of the Ministerial Declaration. The Agency's programme will also support national efforts to respond to

a number of operative paragraphs in General Conference resolution GC(56)/RES/10.

Objectives

- To contribute to efforts by States to improve the security of nuclear material and nuclear facilities, and radioactive sources and associated facilities, and for the transport of nuclear and other radioactive material.
- To improve national nuclear security capabilities to act effectively when material is detected out of regulatory control as well as assisting in national efforts to reduce the risk that nuclear or other radioactive material could be used in criminal or intentional unauthorized acts.

Outcomes

- Enhanced protection of nuclear and other radioactive material and their associated facilities and activities.
- Improved regulatory infrastructure and capabilities for nuclear security in States.
- Improved capabilities to provide advice and assistance, on request, to States with regard to the physical protection of nuclear and other radioactive material and associated facilities and activities.
- Improved capabilities to provide advice and assistance, on request, to States with regard to nuclear and other radioactive material out of regulatory control, including measures to prevent, detect and respond to nuclear security events.

Performance Indicators

- Number of agreed nuclear security projects implemented with States, such as 'complex projects' for border monitoring or 'joint action plans' for major public events, and related feedback.
- Number of facilities/locations/transports for which security has been improved through implementation of Agency advice and assistance, including accounting for and control of nuclear and other radioactive material.
- Number of disused radioactive sources that have been secured or returned to the original supplier.

F. Programme Management

F.1. Programme Management and Resources

21. During the period of the first three Nuclear Security Plans, funding relied in large part on extrabudgetary contributions. In order to plan for and manage its activities, the Secretariat needs to increase the share of its funding that comes from the regular budget. The activities funded by the regular budget should be core activities that are designed to benefit the greatest number of Member States, including the maintenance of the programme on the Incident and Trafficking Database, the development of guidance in the Nuclear Security Series and the development of education and training programmes to assist States to implement that guidance.

22. An increase in the resources available to the Secretariat from the regular budget should support the regularization of full-time staff positions in the Office of Nuclear Security so that reliance on short term contracts and other hiring instruments to fill staffing needs can be reduced.

23. Although the Secretariat anticipates greater reliance on the regular budget to support core activities, it anticipates continued reliance on extrabudgetary funds. The use of

extrabudgetary funds should be directed towards activities primarily of benefit to an individual State or group of States, or in other ways consistent with requirements placed on such funds.

24. A significant percentage of extrabudgetary contributions have restrictions and/or direction on their use. The Secretariat must continue to meet such conditions while determining how it can continue to implement the core activities mentioned above.

25. In support of its activities, whether through resources provided from the regular budget or extrabudgetary funds, the Secretariat must be prepared to address possible reductions in contributions to the Nuclear Security Fund.

26. Resource requirements for 2014 and for 2015 (preliminary estimates) were set out in document GC(57)/2, *The Agency's Programme and Budget 2014–2015*. As assistance is provided at the request of States, the actual resource required over the four years implementation of the Plan will depend on the number and complexity of requests received. The Secretariat will provide further information in the course of the implementation of the Plan.

IAEA Incident and Trafficking Database (ITDB): Incidents of nuclear and other radioactive material out of regulatory control

[2015 Fact Sheet]

The IAEA Incident and Trafficking Database (ITDB) system is a unique asset that assists the IAEA's Secretariat, participating States and selected international organizations in improving nuclear security. The ITDB staff maintain and analyze a growing collection of authoritative information on the subject. This information is disseminated through the IAEA to Member States and certain international organizations. Reporting to ITDB is voluntary. As of 31 December 2014, 128 States participate in the ITDB programme (Annex). In the first three months of 2015, Cambodia, Guatemala, and Honduras have joined the ITDB, raising the total to mid-year total to 131. The ITDB is an essential component of the information platform that supports the implementation of the IAEA Nuclear Security Plan.

Scope of the ITDB

The ITDB System was established in 1995 to record and analyse incidents of illicit trafficking in nuclear and other radioactive material. It incorporates all incidents in which nuclear and other radioactive material is out of regulatory control.

In 2012 the title of the ITDB was aligned with the terms of reference which focuses on more than just 'illicit trafficking incidents' by explicitly including all nuclear and other radioactive material not under regulatory control. The name of Incident and Trafficking Database (ITDB): Incidents of nuclear and other radioactive material out of regulatory control, was agreed upon and has subsequently been adopted.

Communication with participating States is maintained through the network of national Points of Contact (POC). The ITDB System receives information from POCs on incidents ranging from illegal possession, attempted sale and smuggling to unauthorized disposal of material and discovery of lost radioactive sources.

The ITDB scope covers all types of nuclear material as defined by the Statute of the Agency (i.e. uranium, plutonium and thorium), naturally occurring and artificially produced radioisotopes and radioactively contaminated material, such as scrap metal. States are also encouraged

to report incidents involving scams or hoaxes where material that is purported to be nuclear or otherwise radioactive, i.e. scams.

The Secretariat carries out analyses of all incidents in an attempt to identify trends and/or characteristics to assist in the prevention of misuse of nuclear or radioactive material.

Confidentiality and security of the ITDB information

In order to protect the confidentiality of information reported by Member States, the ITDB upholds strict information classification and dissemination procedures. The information provided below represents a cross-section of the aggregated ITDB data that is available for the public domain.

ITDB highlights 1993-2014

Incidents reported to the ITDB show that problems persist with regard to illicit trafficking in nuclear and other radioactive material and with thefts, losses and other unauthorized activities and events.

As of 31 December 2014, the ITDB contained a total of 2734 confirmed incidents reported by participating States. Of the 2734²⁹ confirmed incidents, 442 incidents involved unauthorized possession and related criminal activities, 714 incidents involved reported theft or loss and 1526 incidents involved other unauthorized activities and events. In the remaining 86 cases, the reported information was not sufficient to determine the category of incident.

Unauthorized possession and related criminal activities, 1993-2014

Incidents included in this group involve the illegal possession and movement of nuclear material or radioactive sources and attempts to sell, purchase or otherwise use such material for illegal purposes. These incident reports indicate a continuing nuclear security concern.

Confirmed incidents involving unauthorized possession and related criminal activities, 1993-2014

Group 1 Incidents total 442

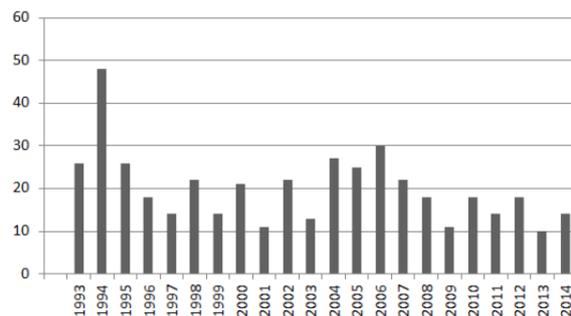


Figure 1. Incidents reported to the ITDB involving unauthorized possession and related criminal activities. 1993-2014

The number of incidents reported to the ITDB involving unauthorized possession or other related criminal activities reached a peak in the early 1990s. However, the number of incidents of material out of regulatory control reported has subsequently remained relatively constant. It should be noted that due to a reporting time lag of 2-3 years, the

²⁹ An incident may be categorized in more than one group—for example the theft and subsequent attempted sale of a radioactive source. Accordingly the sum of the incidents in the groups is greater than the total number of incidents.

total number of incidents recorded from 2012-2014 is likely to rise in line with previous years.

In the 1993–2014 period, group 1 confirmed incidents included highly enriched uranium (13), plutonium (3), and plutonium beryllium neutron sources³⁰ (5). Some of these incidents involved attempts to sell or traffic these materials across international borders.

A small number of these incidents involved seizures of kilogram quantities of potentially weapons-usable nuclear material, but the majority involved gram quantities. In some of these cases, there were indications that the seized material was a sample from a larger unsecured stockpile.

Incidents involving attempts to sell nuclear or other radioactive material indicate that there is a perceived demand for such material. The number of successful transactions is not known and therefore it is difficult to accurately characterize an 'illicit nuclear market'. Where information on motives is available, it indicates financial gain to be the principal incentive behind the majority of events. Many trafficking incidents could be characterized as 'amateur' in nature, as demonstrated by ad-hoc planning and a lack of resources and technical proficiency. However, there are a few significant cases that appear more organized, better resourced and that involved perpetrators with a track record in trafficking nuclear/radioactive material

Thefts and losses, 1993-2014

Incidents included in this group involve the theft or loss of nuclear material or radioactive sources from facilities or during transport. Theft can mark the beginning of an illicit trafficking incident. Thefts and losses are also indicative of vulnerabilities in security and control systems at the originating facility. These incident reports indicate a continuing nuclear security concern.

Confirmed incidents involving theft or loss, Group 2, 1993-2014

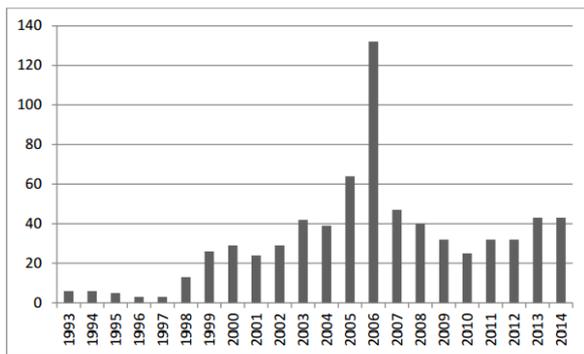


Figure 2. Incidents reported to the ITDB involving theft or loss, 1993-2014

The number of incidents reported to the ITDB involving the loss or theft of material has steadily³¹ increased from the late 1990s. In the 1993–2014 period, confirmed incidents included highly enriched uranium (3) and plutonium

³⁰ Plutonium smoke detectors were separately reported and totaled 17 in Group 1.

³¹ It should be noted that the sharp increase in 2006 is related to a change in reporting procedures, rather than an actual change in the incident numbers. As with the previous incident category, the apparent drop from 2010 is a regular phenomenon that has been previously been attributable to a reporting time lag of 2-3 years.

neutron sources (3)³². Some of these incidents involved attempts to sell or traffic these materials across international borders.

The majority of thefts and losses reported to ITDB involve radioactive sources that are used in industrial or medical applications. Devices containing radioactive sources can be attractive to a potential thief as they may be perceived to have a high resale or metal scrap value.

The majority of industrial sources that are reported stolen or lost are those used for nondestructive testing and for applications in construction and mining. The majority of such devices use relatively long lived isotopes such as iridium-192, caesium-137 and americium- 241. Those incidents reported to the ITDB in 2013 range from potentially lethal Category 1 to less hazardous Category 5 sources. The ITDB categorizes sealed radioactive sources, in accordance with IAEA Publication RS-G-1.9, from 1-5. The exposure of only a few minutes to a Category 1 source can be fatal. Category 5 sources can give rise to significant doses if not properly controlled.

The information received underscores the need to improve security measures for such sources as well as enhance the regulatory arrangements governing their use, storage, transport and disposal.

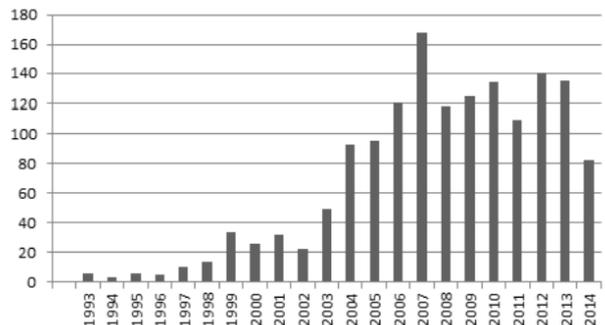
Medical facilities also use a wide range of radioactive sources. A significant proportion of incidents reported to the ITDB related to the loss of sources used in diagnostic and radiotherapy applications. These are generally the less dangerous Category 5 sources that when encapsulated pose a relatively low hazard to human health. Many hospitals also house and use high activity Category 1 sources, such as those used in radiotherapy treatment; however, it is rare to receive a report of an incident involving a source that has been used for these applications.

The recovery rate for Category 1-3 radioactive sources is high due to the concerted effort made by the authorities to recover them. The majority of incidents relating to Categories 4 and 5 radioactive sources do not have a follow-up report confirming their recovery.

Other unauthorized activities and events, 1993-2012

Incidents included in this group primarily involve various types of material recovery, such as discovery of uncontrolled sources, detection of materials disposed of in an unauthorized way and detection of inadvertent unauthorized possession or shipment of nuclear or other radioactive material. These incident reports indicate a continuing nuclear security concern.

Incidents involving other unauthorized activities and events, Group 3, 1993-2014



³² Plutonium smoke detectors were separately reported and totaled 6 in Group 2.

Figure 3. Other unauthorized activities and events, 1993-2014.

The majority of incidents involving 'other unauthorized activities or events', fall into one of three categories: the unauthorized disposal (e.g. radioactive sources entering the scrap metal industry), unauthorized shipment (e.g. scrap metals contaminated with radioactive material being shipped across international borders) or the discovery of radioactive material (e.g. uncontrolled radioactive sources). The occurrence of such incidents can indicate deficiencies in the systems to control, secure and properly dispose of radioactive material.

The reporting of these incidents, especially 'unauthorized disposal' and 'unauthorized shipment' has risen steadily since 2003. There is evidence that this rise is related to the increased number of radiation portal monitoring systems that have been deployed at national borders and scrap metal facilities.

Since 2009, the ITDB has received reports of enriched uranium associated with metal scrap received by scrapyards, which continued into 2014. Of concern is the repeated appearance of high enriched uranium in metal recycling streams and outside of regulatory control. In the 1993–2014 period, confirmed incidents included highly enriched uranium (13), plutonium (1), and plutonium neutron sources³³ (8).

In recent years, a growing number of incidents involved the detection of manufactured goods contaminated with radioactive material. This indicates a persistent problem for some countries in securing and detecting the unauthorized disposal of radioactive sources. The most common source of such contamination is the material (in most cases, metal) from which the product had been manufactured. This material may have originated from the metal recycling industry and, in the process of being melted down, became contaminated with material from a radioactive source such as cobalt-60. Such contaminated metal, if used to manufacture household goods, could pose a potential health problem to unsuspecting consumers.

Regional meetings on illicit nuclear trafficking information management and coordination

Since 2008, participants from 115 States, of which 103 were IAEA Member States, have attended one or more of the 14 regional information meetings that have been conducted by the IAEA across the globe. These meetings are designed, inter alia, to enhance dialogue on the illicit trafficking and related nuclear security issues that most impact the region; help to raise awareness of the ITDB programme; and highlight the support the IAEA can offer to States in improving all elements of nuclear security.

Regional information meetings also contribute to strengthening the national, regional and international capacity to combat illicit trafficking in nuclear and other radioactive material through enhanced sharing, management and coordination of information.

Joining the ITDB

Non-participating States are encouraged to join the ITDB programme. States wishing to join the ITDB programme should contact the IAEA Office of Nuclear Security. States will be asked to nominate a single national Point of Contact who will provide reports on incidents to the ITDB, receive ITDB information and reports produced by the Agency and facilitate responses to the Secretariat's enquiries on specific incidents. Information on the ITDB,

the procedures for reporting incidents and copies of the Incident Notification Form will be provided to the POC.

Annex: State Participating in the ITDB, 31 December 2014

1. Albania
2. Algeria
3. Argentina
4. Armenia
5. Australia
6. Austria
7. Azerbaijan
8. Bahrain
9. Bangladesh
10. Belarus
11. Belgium
12. Bolivia
13. Bosnia and Herzegovina
14. Botswana
15. Brazil
16. Brunei Darussalam
17. Bulgaria
18. Burkina Faso
19. Cameroon
20. Canada
21. Central African Republic
22. Chad
23. Chile
24. China
25. Colombia
26. Congo, Democratic Republic of the
27. Costa Rica
28. Côte d'Ivoire
29. Croatia
30. Cuba
31. Cyprus
32. Czech Republic
33. Denmark
34. Dominican Republic
35. Ecuador
36. Estonia
37. Ethiopia
38. Finland
39. France
40. Georgia
41. Germany
42. Ghana
43. Greece
44. Haiti
45. Hungary
46. Iceland
47. India
48. Indonesia
49. Iran
50. Iraq
51. Ireland
52. Israel
53. Italy
54. Jamaica
55. Japan
56. Jordan
57. Kazakhstan
58. Kenya
59. Korea, Republic of
60. Kuwait
61. Kyrgyzstan
62. Latvia
63. Lebanon
64. Lesotho
65. Lithuania
66. Luxembourg
67. Madagascar
68. Malawi
69. Malaysia
70. Mali
71. Malta
72. Mauritania

³³ Plutonium smoke detectors were separately reported and totaled 24 in Group 3.

D – International Atomic Energy Agency Documents

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|---|---|
| <ul style="list-style-type: none"> 73. Mauritius 74. Mexico 75. Moldova, Republic of 76. Mongolia 77. Montenegro 78. Morocco 79. Mozambique 80. Namibia 81. Nepal 82. Netherlands 83. New Zealand 84. Niger 85. Nigeria 86. Norway 87. Oman 88. Pakistan 89. Panama 90. Paraguay 91. Peru 92. Philippines 93. Poland 94. Portugal 95. Qatar 96. Romania 97. Russian Federation 98. Saudi Arabia 99. Senegal 100. Serbia 101. Sierra Leone 102. Singapore 103. Slovakia | <ul style="list-style-type: none"> 104. Slovenia 105. South Africa 106. Spain 107. Sri Lanka 108. Sudan 109. Sweden 110. Switzerland 111. Tajikistan 112. Tanzania 113. Thailand 114. The Former Yugoslav Republic of Macedonia 115. Tunisia 116. Turkey 117. Uganda 118. Ukraine 119. United Arab Emirates 120. United Kingdom 121. USA 122. Uruguay 123. Uzbekistan 124. Venezuela 125. Vietnam 126. Yemen 127. Zambia 128. Zimbabwe <p>2015</p> <ul style="list-style-type: none"> 129. Cambodia 130. Guatemala 131. Honduras |
|---|---|

E – Nuclear Security Summit Documents

E – Nuclear Security Summit Documents

Remarks by President Barack Obama
Hradcany Square
Prague, Czech Republic
[5 April 2009]

10:21 A.M. (Local)

PRESIDENT OBAMA: Thank you so much. Thank you for this wonderful welcome. Thank you to the people of Prague. Thank you to the people of the Czech Republic. (Applause.) Today, I'm proud to stand here with you in the middle of this great city, in the center of Europe. (Applause.) And, to paraphrase one of my predecessors, I am also proud to be the man who brought Michelle Obama to Prague. (Applause.)

To Mr. President, Mr. Prime Minister, to all the dignitaries who are here, thank you for your extraordinary hospitality. And to the people of the Czech Republic, thank you for your friendship to the United States. (Applause.) I've learned over many years to appreciate the good company and the good humor of the Czech people in my hometown of Chicago. (Applause.) Behind me is a statue of a hero of the Czech people — Tomas Masaryk. (Applause.) In 1918, after America had pledged its support for Czech independence, Masaryk spoke to a crowd in Chicago that was estimated to be over 100,000. I don't think I can match his record -- (laughter) -- but I am honored to follow his footsteps from Chicago to Prague. (Applause.)

For over a thousand years, Prague has set itself apart from any other city in any other place. You've known war and peace. You've seen empires rise and fall. You've led revolutions in the arts and science, in politics and in poetry. Through it all, the people of Prague have insisted on pursuing their own path, and defining their own destiny. And this city — this Golden City which is both ancient and youthful — stands as a living monument to your unconquerable spirit.

When I was born, the world was divided, and our nations were faced with very different circumstances. Few people would have predicted that someone like me would one day become the President of the United States. (Applause.) Few people would have predicted that an American President would one day be permitted to speak to an audience like this in Prague. (Applause.) Few would have imagined that the Czech Republic would become a free nation, a member of NATO, a leader of a united Europe. Those ideas would have been dismissed as dreams.

We are here today because enough people ignored the voices who told them that the world could not change.

We're here today because of the courage of those who stood up and took risks to say that freedom is a right for all people, no matter what side of a wall they live on, and no matter what they look like.

We are here today because of the Prague Spring — because the simple and principled pursuit of liberty and opportunity shamed those who relied on the power of tanks and arms to put down the will of a people.

We are here today because 20 years ago, the people of this city took to the streets to claim the promise of a new day, and the fundamental human rights that had been denied them for far too long. Sametová Revoluce -- (applause) -- the Velvet Revolution taught us many things. It showed us that peaceful protest could shake the foundations of an empire, and expose the emptiness of an ideology. It showed us that small countries can play a pivotal role in world events, and that young people can lead the way in overcoming old conflicts. (Applause.) And it proved that moral leadership is more powerful than any weapon.

That's why I'm speaking to you in the center of a Europe that is peaceful, united and free — because ordinary people believed that divisions could be bridged, even when their leaders did not. They believed that walls could come down; that peace could prevail.

We are here today because Americans and Czechs believed against all odds that today could be possible. (Applause.)

Now, we share this common history. But now this generation —our generation — cannot stand still. We, too, have a choice to make. As the world has become less divided, it has become more interconnected. And we've seen events move faster than our ability to control them — a global economy in crisis, a changing climate, the persistent dangers of old conflicts, new threats and the spread of catastrophic weapons.

None of these challenges can be solved quickly or easily. But all of them demand that we listen to one another and work together; that we focus on our common interests, not on occasional differences; and that we reaffirm our shared values, which are stronger than any force that could drive us apart. That is the work that we must carry on. That is the work that I have come to Europe to begin. (Applause.)

To renew our prosperity, we need action coordinated across borders. That means investments to create new jobs. That means resisting the walls of protectionism that stand in the way of growth. That means a change in our financial system, with new rules to prevent abuse and future crisis. (Applause.)

And we have an obligation to our common prosperity and our common humanity to extend a hand to those emerging markets and impoverished people who are suffering the most, even though they may have had very little to do with financial crises, which is why we set aside over a trillion dollars for the International Monetary Fund earlier this week, to make sure that everybody -- everybody -- receives some assistance. (Applause.)

Now, to protect our planet, now is the time to change the way that we use energy. (Applause.) Together, we must confront climate change by ending the world's dependence on fossil fuels, by tapping the power of new sources of energy like the wind and sun, and calling upon all nations to do their part. And I pledge to you that in this global effort, the United States is now ready to lead. (Applause.)

To provide for our common security, we must strengthen our alliance. NATO was founded 60 years ago, after Communism took over Czechoslovakia. That was when the free world learned too late that it could not afford division. So we came together to forge the strongest alliance that the world has ever known. And we should -- stood shoulder to shoulder -- year after year, decade after decade -- until an Iron Curtain was lifted, and freedom spread like flowing water.

This marks the 10th year of NATO membership for the Czech Republic. And I know that many times in the 20th century, decisions were made without you at the table. Great powers let you down, or determined your destiny without your voice being heard. I am here to say that the United States will never turn its back on the people of this nation. (Applause.) We are bound by shared values, shared history -- (applause.) We are bound by shared values and shared history and the enduring promise of our alliance. NATO's Article V states it clearly: An attack on one is an attack on all. That is a promise for our time, and for all time.

The people of the Czech Republic kept that promise after America was attacked; thousands were killed on our soil, and NATO responded. NATO's mission in Afghanistan is fundamental to the safety of people on both sides of the Atlantic. We are targeting the same al Qaeda terrorists who have struck from New York to London, and helping the Afghan people take responsibility for their future. We are

demonstrating that free nations can make common cause on behalf of our common security. And I want you to know that we honor the sacrifices of the Czech people in this endeavor, and mourn the loss of those you've lost.

But no alliance can afford to stand still. We must work together as NATO members so that we have contingency plans in place to deal with new threats, wherever they may come from. We must strengthen our cooperation with one another, and with other nations and institutions around the world, to confront dangers that recognize no borders. And we must pursue constructive relations with Russia on issues of common concern.

Now, one of those issues that I'll focus on today is fundamental to the security of our nations and to the peace of the world — that's the future of nuclear weapons in the 21st century.

The existence of thousands of nuclear weapons is the most dangerous legacy of the Cold War. No nuclear war was fought between the United States and the Soviet Union, but generations lived with the knowledge that their world could be erased in a single flash of light. Cities like Prague that existed for centuries, that embodied the beauty and the talent of so much of humanity, would have ceased to exist.

Today, the Cold War has disappeared but thousands of those weapons have not. In a strange turn of history, the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up. More nations have acquired these weapons. Testing has continued. Black market trade in nuclear secrets and nuclear materials abound. The technology to build a bomb has spread. Terrorists are determined to buy, build or steal one. Our efforts to contain these dangers are centered on a global non-proliferation regime, but as more people and nations break the rules, we could reach the point where the center cannot hold.

Now, understand, this matters to people everywhere. One nuclear weapon exploded in one city — be it New York or Moscow, Islamabad or Mumbai, Tokyo or Tel Aviv, Paris or Prague — could kill hundreds of thousands of people. And no matter where it happens, there is no end to what the consequences might be — for our global safety, our security, our society, our economy, to our ultimate survival.

Some argue that the spread of these weapons cannot be stopped, cannot be checked — that we are destined to live in a world where more nations and more people possess the ultimate tools of destruction. Such fatalism is a deadly adversary, for if we believe that the spread of nuclear weapons is inevitable, then in some way we are admitting to ourselves that the use of nuclear weapons is inevitable.

Just as we stood for freedom in the 20th century, we must stand together for the right of people everywhere to live free from fear in the 21st century. (Applause.) And as nuclear power — as a nuclear power, as the only nuclear power to have used a nuclear weapon, the United States has a moral responsibility to act. We cannot succeed in this endeavor alone, but we can lead it, we can start it.

So today, I state clearly and with conviction America's commitment to seek the peace and security of a world without nuclear weapons. (Applause.) I'm not naive. This goal will not be reached quickly — perhaps not in my lifetime. It will take patience and persistence. But now we, too, must ignore the voices who tell us that the world cannot change. We have to insist, "Yes, we can." (Applause.)

Now, let me describe to you the trajectory we need to be on. First, the United States will take concrete steps towards a world without nuclear weapons. To put an end to Cold War thinking, we will reduce the role of nuclear weapons in our national security strategy, and urge others to do the same. Make no mistake: As long as these weapons exist, the United States will maintain a safe, secure and effective arsenal to deter any adversary, and guarantee that defense to our allies

— including the Czech Republic. But we will begin the work of reducing our arsenal.

To reduce our warheads and stockpiles, we will negotiate a new Strategic Arms Reduction Treaty with the Russians this year. (Applause.) President Medvedev and I began this process in London, and will seek a new agreement by the end of this year that is legally binding and sufficiently bold. And this will set the stage for further cuts, and we will seek to include all nuclear weapons states in this endeavor.

To achieve a global ban on nuclear testing, my administration will immediately and aggressively pursue U.S. ratification of the Comprehensive Test Ban Treaty. (Applause.) After more than five decades of talks, it is time for the testing of nuclear weapons to finally be banned.

And to cut off the building blocks needed for a bomb, the United States will seek a new treaty that verifiably ends the production of fissile materials intended for use in state nuclear weapons. If we are serious about stopping the spread of these weapons, then we should put an end to the dedicated production of weapons-grade materials that create them. That's the first step.

Second, together we will strengthen the Nuclear Non-Proliferation Treaty as a basis for cooperation.

The basic bargain is sound: Countries with nuclear weapons will move towards disarmament, countries without nuclear weapons will not acquire them, and all countries can access peaceful nuclear energy. To strengthen the treaty, we should embrace several principles. We need more resources and authority to strengthen international inspections. We need real and immediate consequences for countries caught breaking the rules or trying to leave the treaty without cause.

And we should build a new framework for civil nuclear cooperation, including an international fuel bank, so that countries can access peaceful power without increasing the risks of proliferation. That must be the right of every nation that renounces nuclear weapons, especially developing countries embarking on peaceful programs. And no approach will succeed if it's based on the denial of rights to nations that play by the rules. We must harness the power of nuclear energy on behalf of our efforts to combat climate change, and to advance peace opportunity for all people.

But we go forward with no illusions. Some countries will break the rules. That's why we need a structure in place that ensures when any nation does, they will face consequences.

Just this morning, we were reminded again of why we need a new and more rigorous approach to address this threat. North Korea broke the rules once again by testing a rocket that could be used for long range missiles. This provocation underscores the need for action — not just this afternoon at the U.N. Security Council, but in our determination to prevent the spread of these weapons.

Rules must be binding. Violations must be punished. Words must mean something. The world must stand together to prevent the spread of these weapons. Now is the time for a strong international response -- (applause) -- now is the time for a strong international response, and North Korea must know that the path to security and respect will never come through threats and illegal weapons. All nations must come together to build a stronger, global regime. And that's why we must stand shoulder to shoulder to pressure the North Koreans to change course.

Iran has yet to build a nuclear weapon. My administration will seek engagement with Iran based on mutual interests and mutual respect. We believe in dialogue. (Applause.) But in that dialogue we will present a clear choice. We want Iran to take its rightful place in the community of nations, politically and economically. We will support Iran's right to peaceful nuclear energy with rigorous inspections. That's a path that the Islamic Republic can take. Or the government can

choose increased isolation, international pressure, and a potential nuclear arms race in the region that will increase insecurity for all.

So let me be clear: Iran's nuclear and ballistic missile activity poses a real threat, not just to the United States, but to Iran's neighbors and our allies. The Czech Republic and Poland have been courageous in agreeing to host a defense against these missiles. As long as the threat from Iran persists, we will go forward with a missile defense system that is cost-effective and proven. (Applause.) If the Iranian threat is eliminated, we will have a stronger basis for security, and the driving force for missile defense construction in Europe will be removed. (Applause.)

So, finally, we must ensure that terrorists never acquire a nuclear weapon. This is the most immediate and extreme threat to global security. One terrorist with one nuclear weapon could unleash massive destruction. Al Qaeda has said it seeks a bomb and that it would have no problem with using it. And we know that there is unsecured nuclear material across the globe. To protect our people, we must act with a sense of purpose without delay.

So today I am announcing a new international effort to secure all vulnerable nuclear material around the world within four years. We will set new standards, expand our cooperation with Russia, pursue new partnerships to lock down these sensitive materials.

We must also build on our efforts to break up black markets, detect and intercept materials in transit, and use financial tools to disrupt this dangerous trade. Because this threat will be lasting, we should come together to turn efforts such as the Proliferation Security Initiative and the Global Initiative to Combat Nuclear Terrorism into durable international institutions. And we should start by having a Global Summit on Nuclear Security that the United States will host within the next year. (Applause.)

Now, I know that there are some who will question whether we can act on such a broad agenda. There are those who doubt whether true international cooperation is possible, given inevitable differences among nations. And there are those who hear talk of a world without nuclear weapons and doubt whether it's worth setting a goal that seems impossible to achieve.

But make no mistake: We know where that road leads. When nations and peoples allow themselves to be defined by their differences, the gulf between them widens. When we fail to pursue peace, then it stays forever beyond our grasp. We know the path when we choose fear over hope. To denounce or shrug off a call for cooperation is an easy but also a cowardly thing to do. That's how wars begin. That's where human progress ends.

There is violence and injustice in our world that must be confronted. We must confront it not by splitting apart but by standing together as free nations, as free people. (Applause.) I know that a call to arms can stir the souls of men and women more than a call to lay them down. But that is why the voices for peace and progress must be raised together. (Applause.)

Those are the voices that still echo through the streets of Prague. Those are the ghosts of 1968. Those were the joyful sounds of the Velvet Revolution. Those were the Czechs who helped bring down a nuclear-armed empire without firing a shot.

Human destiny will be what we make of it. And here in Prague, let us honor our past by reaching for a better future. Let us bridge our divisions, build upon our hopes, accept our responsibility to leave this world more prosperous and more peaceful than we found it. (Applause.) Together we can do it.

Thank you very much. Thank you, Prague. (Applause.)

END
10:49 A.M. (Local)

Final communiqué of the 47-nation Nuclear Security Summit in Washington

[14 April 2010]

Nuclear terrorism is one of the most challenging threats to international security, and strong nuclear security measures are the most effective means to prevent terrorists, criminals, or other unauthorized actors from acquiring nuclear materials.

In addition to our shared goals of nuclear disarmament, nuclear nonproliferation and peaceful uses of nuclear energy, we also all share the objective of nuclear security.

Therefore those gathered here in Washington, D.C., on April 13, 2010, commit to strengthen nuclear security and reduce the threat of nuclear terrorism.

Success will require responsible national actions and sustained and effective international cooperation.

We welcome and join President Obama's call to secure all vulnerable nuclear material in four years, as we work together to enhance nuclear security. Therefore, we:

1. Reaffirm the fundamental responsibility of States, consistent with their respective international obligations, to maintain effective security of all nuclear materials, which includes nuclear materials used in nuclear weapons, and nuclear facilities under their control; to prevent non-state actors from obtaining the information or technology required to use such material for malicious purposes; and emphasize the importance of robust national legislative and regulatory frameworks for nuclear security;
2. Call on States to work cooperatively as an international community to advance nuclear security, requesting and providing assistance as necessary;
3. Recognize that highly enriched uranium and separated plutonium require special precautions and agree to promote measures to secure, account for, and consolidate these materials, as appropriate; and encourage the conversion of reactors from highly enriched to low enriched uranium fuel and minimisation of use of highly enriched uranium, where technically and economically feasible;
4. Endeavor to fully implement all existing nuclear security commitments and work toward acceding to those not yet joined, consistent with national laws, policies and procedures;
5. Support the objectives of international nuclear security instruments, including the Convention on the Physical Protection of Nuclear Material, as amended, and the International Convention for the Suppression of Acts of Nuclear Terrorism, as essential elements of the global nuclear security architecture;
6. Reaffirm the essential role of the International Atomic Energy Agency in the international nuclear security framework and will work to ensure that it continues to have the appropriate structure, resources and expertise needed to carry out its mandated nuclear security activities in accordance with its Statute, relevant General Conference resolutions and its Nuclear Security Plans;
7. Recognize the role and contributions of the United Nations as well as the contributions of the Global Initiative to Combat Nuclear Terrorism and the G-8-led Global Partnership Against the Spread of Weapons and Materials of Mass Destruction within their respective mandates and memberships;
8. Acknowledge the need for capacity building for nuclear security and cooperation at bilateral, regional and multilateral levels for the promotion of nuclear security culture through technology development, human resource development, education, and training; and stress the importance of optimizing international cooperation and coordination of assistance;
9. Recognize the need for cooperation among States to effectively prevent and respond to incidents of illicit nuclear trafficking; and agree to share, subject to respective national laws and procedures, information and expertise through bilateral and multilateral

mechanisms in relevant areas such as nuclear detection, forensics, law enforcement, and the development of new technologies;

10. Recognize the continuing role of nuclear industry, including the private sector, in nuclear security and will work with industry to ensure the necessary priority of physical protection, material accountancy, and security culture;

11. Support the implementation of strong nuclear security practices that will not infringe upon the rights of States to develop and utilize nuclear energy for peaceful purposes and technology and will facilitate international cooperation in the field of nuclear security; and

12. Recognize that measures contributing to nuclear material security have value in relation to the security of radioactive substances and encourage efforts to secure those materials as well.

Maintaining effective nuclear security will require continuous national efforts facilitated by international cooperation and undertaken on a voluntary basis by States. We will promote the strengthening of global nuclear security through dialogue and cooperation with all states. Thus, we issue the Work Plan as guidance for national and international action including through cooperation within the context of relevant international fora and organisations. We will hold the next Nuclear Security Summit in the Republic of Korea in 2012.

Highlights of National Commitments, Nuclear Security Summit

[Washington DC, 12-13 April 2010]

Armenia: Ratified International Convention on Suppression of Acts of Nuclear Terrorism, passed new export control law

Argentina: Joined the Global Initiative to Combat Nuclear Terrorism; moving toward the ratification of the International Convention on Suppression of Acts of Nuclear Terrorism and 2005 Amendment of the Convention on Physical Protection of Nuclear Materials

Australia: Moving toward the ratification of the International Convention on Suppression of Acts of Nuclear Terrorism

Belgium: Contributing \$300,000 to International Atomic Energy Agency's Nuclear Security Fund

Canada: Returning a large amount of spent highly enriched uranium fuel from their medical isotope production reactor to the United States; championing the extension of the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction; funding highly enriched uranium removals from Mexico and Vietnam; hosting and funding a World Institute of Nuclear Security best practices workshop in Ottawa; unveiling \$100 million in new bilateral security cooperation with Russia

Chile: Removed all highly enriched uranium (18kgs) in March 2010

China: Announce cooperation on nuclear security Center of Excellence Egypt: Passed new comprehensive nuclear law in March 2010 that includes nuclear security, criminalization of sabotage and illicit trafficking provisions as well as envisaging an independent regulatory authority

France: Ratifying the 2005 Amendment to the Convention on Physical Protection of Nuclear materials; inviting an International Physical Protection Advisory Service security review from the International Atomic Energy Agency; incorporating training in nuclear security at the European Nuclear Safety Training and Tutoring Institute and the International Nuclear Energy Institute (announced during March 2010 Paris nuclear energy conference)

Finland: Invited an International Physical Protection Advisory Service security review from the International Atomic Energy Agency

Germany: Moving toward ratifying 2005 Amendment of the Convention on Physical Protection of Nuclear Materials

Georgia: Signed instrument of approval for International Convention for the Suppression of Acts of Nuclear Terrorism on April 7, 2010

India: Announcing the creation of a Nuclear Energy Center with a

nuclear security component Italy: Signed a Megaports agreement (to install detection equipment at ports) with U.S.; establishing a school of nuclear security in Trieste, in collaboration with the Abdus Salam International Center for Theoretical Physics and the International Atomic Energy Agency (IAEA), to train nuclear personnel from developing countries

Japan: Launching an integrated regional support center; research and development on detection and forensics; contributing new resources to International Atomic Energy Agency's Nuclear Security Fund; hosting and funding a World Institute of Nuclear Security best practices conference

Kazakhstan: Converting a highly enriched uranium research reactor and eliminating remaining highly enriched uranium; cooperative work on BN-350 reactor shutdown and fuel security; hosting a Global Initiative Activity in June; considering a International Nuclear Security Training Center.

Malaysia: Passed new export control law

Mexico: Converting a highly enriched uranium research reactor and eliminating remaining highly enriched uranium working through IAEA

New Zealand: Contributing to International Atomic Energy Agency's Nuclear Security Fund; contributing to the U.S. Nuclear Smuggling Outreach Initiative

Norway: Contributing \$3.3 million over the next four years to the IAEA nuclear security fund (flexible funds for use for activities in developing countries); contributing \$500,000 in additional support to Kazakhstan's efforts to upgrade portal monitors to prevent nuclear smuggling as part of the Global Initiative to Combat Nuclear Terrorism

Philippines: Joining the Global Initiative to Combat Nuclear Terrorism Republic of Korea: Hosting 2012 Nuclear Security Summit; hosting a Global Initiative activity

Russia: Signing Plutonium Disposition protocol; ending plutonium production; contributing International Atomic Energy Agency's Nuclear Security Fund

Saudi Arabia: Hosting a UNSCR 1540 conference for Gulf Cooperation Council Thailand: Joining the Global Initiative to Combat Nuclear Terrorism

Ukraine: Removing all highly enriched uranium by next Summit—half of it by year's end

United Arab Emirates: Signed a Megaports Agreement with the U.S.

United Kingdom: Contributing \$6 million to International Atomic Energy Agency's Nuclear Security Fund; inviting an International Physical Protection Advisory Service security review from the International Atomic Energy Agency; ratification of the International Convention on Suppression of Acts of Nuclear Terrorism and 2005 Amendment of the Convention on Physical Protection of Nuclear Materials

Vietnam: Converting a highly enriched uranium research reactor; joining the Global Initiative to Combat Nuclear Terrorism

IAEA: Completing final review of the next revision of INFCIRC 225, the IAEA nuclear physical security guidance document.

Work Plan of the Washington Nuclear Security Summit

[Washington DC, 13 April 2010]

This Work Plan supports the Communiqué of the Washington Nuclear Security Summit. It constitutes a political commitment by the Participating States to carry out, on a voluntary basis, applicable portions of this Work Plan, consistent with respective national laws and international obligations, in all aspects of the storage, use, transportation and disposal of nuclear materials and in preventing non-state actors from obtaining the information required to use such material for malicious purposes.

Recognizing the importance of the International Convention for the Suppression of Acts of Nuclear Terrorism as an important legally binding multilateral instrument addressing threats posed by acts of

nuclear terrorism:

1. Participating States Parties to the Convention will work together to achieve universality of the Convention, as soon as possible;
2. Participating States Parties to the Convention will assist States, as appropriate and upon their request, to implement the Convention; and
3. Participating States Parties to the Convention encourage discussions among States Parties to consider measures to ensure its effective implementation, as called for in Article 20 of the Convention.

Recognizing the importance of the Convention on the Physical Protection of Nuclear Material, as the only multilateral legally binding agreement dealing with the physical protection of nuclear material in peaceful uses, and the value of the 2005 Amendment to the Convention in strengthening global security:

1. Participating States Parties to the Convention will work towards its universal adherence and where applicable, to accelerate the ratification processes of the Amendment to the Convention and to act for early implementation of that Amendment;
2. Participating States Parties to the Convention call on all States to act in accordance with the object and purpose of the Amendment until such time as it enters into force; and
3. Participating States Parties to the Convention will assist States, as appropriate and upon their request, to implement the Convention and the Amendment.

Noting the need to fully implement United Nations Security Council Resolution (UNSCR) 1540 (2004) on preventing non-State actors from obtaining weapons of mass destruction (WMD), their means of delivery and related materials, in particular as it relates to nuclear material:

1. Participating States support the continued dialogue between the Security Council committee established pursuant to UNSCR 1540 and States and support strengthened international cooperation in this regard, in accordance with relevant United Nations resolutions and within the framework of the United Nations Global Counterterrorism Strategy;
2. Participating States support the activities of the Security Council committee established pursuant to UNSCR 1540 to promote full implementation;
3. Participating States recognize the importance of complete and timely reporting as called for by UNSCR 1540, and will work with other States to do so, including by providing technical support or assistance, as requested;
4. Participating States note the outcome of Comprehensive Review by the Security Council committee established pursuant to UNSCR 1540, including the consideration of the establishment of a voluntary fund, and express their support for ensuring the effective and sustainable support for the activities of the 1540 Committee;
5. With respect to the nuclear security-related aspects of Paragraph 3, sections (a) and (b) of UNSCR 1540, Participating States recognize the importance of evaluating and improving their physical protection systems to ensure that they are capable of achieving the objectives set out in relevant International Atomic Energy Agency (IAEA) Nuclear Security Series documents and as contained in the document "Physical Protection of Nuclear Material and Nuclear Facilities," (INFCIRC/225); and
6. Participating States in a position to do so are encouraged to provide technical assistance to those States that request it through appropriate mechanisms, including through the Committee's efforts to match needs with available resources.

Welcoming IAEA activities in support of national efforts to enhance nuclear security worldwide and commending the work of the IAEA for the provision of assistance, upon request, through its Nuclear Security Programme and for the implementation of the Nuclear Security Plan 2010 – 2013, approved by the Board of Governors in September 2009 and noted by the IAEA General Conference, and welcoming IAEA programs to advance new technologies to improve nuclear security and nuclear materials accountancy.

Recognizing that the IAEA is facilitating the development by

member states, in the framework of the Nuclear Security Series, of guidance and recommendations relating to the prevention and detection of, and response to, theft, sabotage, unauthorized access and illegal transfer, or other malicious acts involving, inter alia, nuclear material, and associated facilities, and is providing guidance in developing and implementing effective nuclear security measures.

Noting that pursuit of the objectives of this Work Plan will not be interpreted so as to alter the mandate or responsibilities of the IAEA:

1. Participating States note that the IAEA's Nuclear Security Series of documents provides recommendations and guidance to assist States in a wide range of aspects of nuclear security, and encourage the widest possible participation by all its member states in the process;
2. Participating States in a position to do so, will work actively with the IAEA towards the completion and implementation, as appropriate, of the guidance provided by the Nuclear Security Series, and to assist, upon request, other States in doing so;
3. Participating States in particular welcome and support the IAEA's efforts to finalize the fifth revision of the recommendations contained in INFCIRC/225, which will be published in the Nuclear Security Series;
4. Participating States recognize the importance of nuclear material accountancy in support of nuclear security and look forward to the completion of the technical guidance document on "Nuclear Material Accountancy Systems at Facilities";
5. Participating States will endeavor to incorporate, as appropriate, the relevant principles set out in the Nuclear Security Series documents, into the planning, construction, and operation of nuclear facilities;
6. Participating States, when implementing their national nuclear security measures, will support the use of the IAEA Implementing Guide on the Development, Use and Maintenance of the Design Basis Threat to elaborate their national design basis threat as appropriate, to include the consideration of outsider and insider threats;
7. Participating States welcome the IAEA's efforts to assist States to develop, upon request, Integrated Nuclear Security Support Plans to consolidate their nuclear security needs into integrated plans for nuclear security improvements and assistance;
8. Participating States recognize the value of IAEA support mechanisms such as the International Physical Protection Advisory Service missions to review, as requested, their physical protection systems for civilian nuclear material and facilities; and
9. Participating States call upon all member states of the IAEA in a position to do so to provide the necessary support to enable the IAEA to implement these important activities.

Noting the contributions to the promotion of nuclear security by the U.N. and initiatives such as the Global Initiative to Combat Nuclear Terrorism, the G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, as well as other bilateral, regional, multilateral, and nongovernmental activities within their respective mandates and memberships:

1. Participating States will work together, as appropriate, to ensure that nuclear security cooperation mechanisms are complementary, reinforcing, efficient, consistent with related IAEA activities, and appropriately matched to identified needs in those States requesting assistance;
2. Participating States encourage, where appropriate, expanded participation in and commitment to international initiatives and voluntary cooperative mechanisms aimed at improving nuclear security and preventing nuclear terrorism; and
3. Participating States welcome the intent of the members of the G-8 Global Partnership, in a position to do so, to undertake additional programming to enhance nuclear security.

Recognizing States' rights to develop and use nuclear energy for peaceful purposes, and noting the responsibility of each State for the use and management of all nuclear materials and facilities under its jurisdiction and recognize that highly enriched uranium

and separated plutonium are particularly sensitive and require special precautions:

1. Participating States will consider, where appropriate, the consolidation of national sites where nuclear material is held;
2. Participating States will continue to exercise particular care in ensuring the safe and secure transport of nuclear materials, both in domestic and international transport;
3. Participating States, where appropriate, will consider on a national basis the safe, secure and timely removal and disposition of nuclear materials from facilities no longer using them;
4. Participating States will continue to exercise particular care in securing and accounting for separated plutonium, taking into consideration the potential of various forms for use in a nuclear explosive device;
5. Participating States will consider, where appropriate, converting highly-enriched-uranium fueled research reactors, and other nuclear facilities using highly enriched uranium, to use low enriched uranium, where it is technically and economically feasible;
6. Participating States, as appropriate, will collaborate to research and develop new technologies that require neither highly enriched uranium fuels for reactor operation nor highly enriched uranium targets for producing medical or other isotopes, and will encourage the use of low enriched uranium and other proliferation-resistant technologies and fuels in various commercial applications such as isotope production;
7. Participating States in a position to do so will provide assistance to those States requesting assistance to secure, account for, consolidate, and convert nuclear materials; and
8. Participating States will consider how to best address the security of radioactive sources, as well as consider further steps as appropriate.

Mindful of the responsibilities of every Participating State to maintain effective nuclear security and a robust domestic regulatory capacity:

1. Participating States will establish and maintain effective national nuclear security regulations, including the periodic review and adjustment of the regulations as the State considers appropriate;
2. Participating States undertake to maximize regulatory independence, consistent with each State's particular legal and institutional structures;
3. Participating States will undertake to build regulatory capacity and ensure sufficiently trained and fully vetted professional nuclear security staff and adequate resources, taking into account current needs and future expansion of their respective nuclear programs; and
4. Participating States will pursue the review and enforcement of compliance with national nuclear security regulations as a matter of priority.

Understanding the role of the nuclear industry, including the private sector, in nuclear security and recognizing that national governments are responsible for standard setting within each State:

1. Participating States will work, in guiding the nuclear industry, to promote and sustain strong nuclear security culture and corporate commitment to implement robust security practices, including regular exercises and performance testing of nuclear security features, consistent with national regulations;
2. Consistent with State requirements, Participating States will facilitate exchange of best practices, where legally and practically feasible, in nuclear security in the nuclear industry, and in this respect, will utilize relevant institutions to support such exchanges; and
3. Participating States encourage nuclear operators and architect/engineering firms to take into account and incorporate, where appropriate, effective measures of physical protection and security culture into the planning, construction, and operation of civilian nuclear facilities and provide technical assistance, upon request, to other States in doing so.

Emphasizing the importance of the human dimension of nuclear security, the need to enhance security culture, and the need to maintain a well-trained cadre of technical experts:

1. Participating States will promote cooperation, as appropriate, among international organizations, governments, industries, other stakeholders, and academia for effective capacity building, including human resources development in nuclear security programs;
2. Participating States will encourage the creation of and networking among nuclear security support centres for capacity building to disseminate and share best practices and will support IAEA activities in this area;
3. Participating States encourage the creation of adequate national nuclear security capacities, and encourage supplier countries and technology suppliers to support those capacities in the recipient countries, including human resources development through education and training, upon request and consistent with each State's particular legal and institutional structures;
4. Participating States will encourage an integrated approach to education and training and institutional capacity building by all stakeholders having a key role in establishing and maintaining adequate security infrastructure; and
5. Participating States will encourage the implementation of national measures to ensure the proper management of sensitive information in order to prevent illicit acquisition or use of nuclear material, and, where appropriate, will support bilateral and multilateral capacity building projects, upon request.

Underscoring the value of exchanging accurate and verified information, without prejudice to confidentiality provisions, to detect, prevent, suppress, investigate, and prosecute acts or attempted acts of illicit nuclear trafficking and nuclear terrorism:

1. Participating States will strive to improve their national criminal laws, as needed, to ensure that they have the adequate authority to prosecute all types of cases of illicit nuclear trafficking and nuclear terrorism and commit to prosecuting these crimes to the full extent of the law;
2. Participating States are encouraged to develop and apply mechanisms to expand sharing of information on issues, challenges, risks and solutions related to nuclear security, nuclear terrorism and illicit nuclear trafficking in a comprehensive and timely manner; and
3. Participating States are encouraged to develop methods and mechanisms, where appropriate, to enhance bilateral and multilateral collaboration in sharing urgent and relevant information on nuclear security and incidents involving illicit nuclear trafficking.

Noting the IAEA's and Participating States' work in the field of nuclear detection and nuclear forensics, aimed at assisting States in connection with the detection of and response to illicitly trafficked nuclear material, and determination of its origin, and recognizing the importance of respecting provisions on confidentiality of information:

1. Participating States will consider taking further steps, nationally, bilaterally or multilaterally, to enhance their technical capabilities, including the appropriate use of new and innovative technologies, to prevent and combat illicit nuclear trafficking;
2. Participating States will explore ways to work together to develop national capacities for nuclear forensics, such as the creation of national libraries and an international directory of points of contact, to facilitate and encourage cooperation between States in combating illicit nuclear trafficking, including relevant IAEA activities in this area; and
3. Participating States will explore ways to enhance broader cooperation among local, national and international customs and law enforcement bodies to prevent illicit nuclear trafficking and acts of nuclear terrorism, including through joint exercises and sharing of best practices.

Key Facts about the Nuclear Security Summit

[Washington, 2010]

A Historic Event

Not since 1945 has a U.S. President hosted a gathering of so many Heads of State and Government. This unprecedented meeting is to address an unprecedented threat—the threat of nuclear materials in the hands of terrorists or criminals.

The Promise of Prague

In April 2009, in Prague, President Obama spoke of his vision of a world without nuclear weapons even as he recognized the need to create the conditions to bring about such a world. To that end, he put forward a comprehensive agenda to stop the spread of nuclear weapons, reduce nuclear arsenals, and secure nuclear materials.

In April 2010, the United States took three bold steps in the direction of creating those conditions with the release of a Nuclear Posture Review that reduces our dependence on nuclear weapons while strengthening the Nuclear Non-Proliferation Treaty and maintaining a strong deterrent; signing a New START treaty with Russia that limits the number of strategic arms on both sides, and renews U.S.-Russian leadership on nuclear issues; and now has convened a gathering of world leaders to Washington to discuss the need to secure nuclear materials and prevent acts of nuclear terrorism and trafficking.

The Threat

Over 2000 tons of plutonium and highly enriched uranium exist in dozens of countries with a variety of peaceful as well as military uses. There have been 18 documented cases of theft or loss of highly enriched uranium or plutonium, and perhaps others not yet discovered. We know that al-Qa'ida, and possibly other terrorist or criminal groups, are seeking nuclear weapons—as well as the materials and expertise needed to make them. The consequences of a nuclear detonation, or even an attempted detonation, perpetrated by a terrorist or criminal group anywhere in the world would be devastating. Any country could be a target, and all countries would feel the effects.

The Solution

The best way to keep terrorists and criminals from getting nuclear weapons is to keep all weapons and materials, as well as the know-how to make and use them, secure. That is our first and best line of defense. We must also bolster our ability to detect smuggled material, recover lost material, identify the materials origin and prosecute those who are trading in these materials.

The Nuclear Security Summit

Just as the United States is not the only country that would suffer from nuclear terrorism, we cannot prevent it on our own. The Nuclear Security Summit highlights the global threat posed by nuclear terrorism and the need to work together to secure nuclear material and prevent illicit nuclear trafficking and nuclear terrorism.

The leaders of 47 nations came together to advance a common approach and commitment to nuclear security at the highest levels. Leaders in attendance have renewed their commitment to ensure that nuclear materials under their control are not stolen or diverted for use by terrorists, and pledged to continue to evaluate the threat and improve the security as changing conditions may require, and to exchange best practices and practical solutions for doing so. The Summit reinforced the principle that all states are responsible for ensuring the best security of their materials, for seeking assistance if necessary, and providing assistance if asked. It promoted the international treaties that address nuclear security and nuclear terrorism and led to specific national actions that advanced global security.

The Communiqué

The Summit Communiqué is a high-level political statement by the leaders of all 47 countries to strengthen nuclear security and reduce the threat of nuclear terrorism and:

- Endorses President Obama's call to secure all vulnerable nuclear material in four years, and pledges to work together toward this end;
- Calls for focused national efforts to improve security and accounting of nuclear materials and strengthen regulations – with a special focus on plutonium and highly enriched uranium;
- Seeks consolidation of stocks of highly enriched uranium and plutonium and reduction in the use of highly enriched uranium;
- Promotes universality of key international treaties on nuclear security and nuclear terrorism;
- Notes the positive contributions of mechanisms like the Global Initiative to Combat Nuclear Terrorism, to build capacity among law enforcement, industry, and technical personnel;
- Calls for the International Atomic Energy Agency to receive the resources it needs to develop nuclear security guidelines and provide advice to its members on how to implement them;
- Seeks to ensure that bilateral and multilateral security assistance would be applied where it can do the most good; and
- Encourages nuclear industry to share best practices for nuclear security, at the same time making sure that security measures do not prevent countries from enjoying the benefits of peaceful nuclear energy.

The Work Plan

The Summit Work Plan represents guidance for national and international actions to carry out the pledges of the Communiqué. This detailed document lays out the specific steps that will need to be taken to bring the vision of the Communiqué into reality. These steps include:

- Ratifying and implementing treaties on nuclear security and nuclear terrorism;
- Cooperating through the United Nations to implement and assist others in connection with Security Council resolutions;
- Working with the International Atomic Energy Agency to update and implement security guidance and carry out advisory services;
- Reviewing national regulatory and legal requirements relating to nuclear security and nuclear trafficking;
- Converting civilian facilities that use highly enriched uranium to non-weapons-usable materials;
- Research on new nuclear fuels, detection methods, and forensics techniques;
- Development of corporate and institutional cultures that prioritize nuclear security;
- Education and training to ensure that countries and facilities have the people they need to protect their materials; and
- Joint exercises among law enforcement and customs officials to enhance nuclear detection approaches.

Country Commitments

In addition to signing on to the Communiqué and Work Plan, many Summit Participants have made commitments to support the Summit either by taking national actions to increase nuclear security domestically or by working through bilateral or multilateral mechanisms to improve security globally. These specific commitments will enhance global security, provide momentum to the effort to secure nuclear materials, and represent the sense of urgency that has been galvanized by the nature of the threat and the occasion of the

Summit. Many of these commitments are outlined in National Statements.

Next Steps

In preparation for the Summit, each participating entity named a —Sherpa|| to prepare their leadership for full participation. This cadre of specialists, each of whom has both the expertise and leadership positions in their countries to effect change, is a natural network to carrying out the goals of the Summit. The Sherpas plan to reconvene in December to evaluate progress against Summit goals. Additionally, Summit participants plan to reach out to countries who were not able to attend the Washington Summit to explain its goals and outcomes and to expand the dialogue among a wider group. In 2012, leaders will gather again—this time the Republic of Korea—to take stock of the post-Washington work and set new goals for nuclear security.

Final Communiqué of the 2012 Seoul Nuclear Security Summit

[26-27 March 2012]

We, the leaders, gathered in Seoul on March 26-27, 2012, renew the political commitments generated from the 2010 Washington Nuclear Security Summit to work toward strengthening nuclear security, reducing the threat of nuclear terrorism, and preventing terrorists, criminals, or other unauthorized actors from acquiring nuclear materials. Nuclear terrorism continues to be one of the most challenging threats to international security. Defeating this threat requires strong national measures and international cooperation given its potential global political, economic, social, and psychological consequences.

We reaffirm our shared goals of nuclear disarmament, nuclear nonproliferation and peaceful uses of nuclear energy.

Committed to seeking a safer world for all, we also all share the objective of nuclear security. We recognize that the Nuclear Security Summit is a valuable process at the highest political level, supporting our joint call to secure all vulnerable nuclear material in four years. In this regard, we welcome the substantive progress being made on the political commitments of Participating States since the Washington Summit.

We stress the fundamental responsibility of States, consistent with their respective national and international obligations, to maintain effective security of all nuclear material, which includes nuclear materials used in nuclear weapons, and nuclear facilities under their control, and to prevent non-state actors from acquiring such materials and from obtaining information or technology required to use them for malicious purposes. We likewise recognize the fundamental responsibility of States to maintain effective security of other radioactive materials.

We reaffirm that measures to strengthen nuclear security will not hamper the rights of States to develop and utilize nuclear energy for peaceful purposes.

Noting the essential role of the International Atomic Energy Agency (IAEA) in facilitating international cooperation and supporting the efforts of States to fulfill their nuclear security responsibilities, we further stress the importance of regional and international cooperation, and encourage States to promote cooperation with and outreach activities to international partners.

Noting the Fukushima accident of March 2011 and the nexus between nuclear security and nuclear safety, we consider that sustained efforts are required to address the issues of nuclear safety and nuclear security in a coherent manner that will help ensure the safe and secure peaceful uses of nuclear energy.

We will continue to use the Washington Communiqué and Work Plan as a basis for our future work in advancing our nuclear security objectives. At this Seoul Summit, we agree that we will make every possible effort to achieve further progress in the following important areas.

Global Nuclear Security Architecture

1. We recognize the importance of multilateral instruments that address nuclear security, such as the Convention on the Physical Protection of Nuclear Material (CPPNM), as amended, and the

International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT). We therefore encourage the universal adherence to these Conventions. We urge states in a position to do so to accelerate their domestic approval of the 2005 Amendment to the CPPNM, seeking to bring the Amendment into force by 2014. We acknowledge the important role of the United Nations (UN) in promoting nuclear security, support the UN Security Council Resolutions 1540 and 1977 in strengthening global nuclear security, and welcome the extension of its mandate. We will strive to use the IAEA Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Rev.5) document and related Nuclear Security Series documents, and reflect them into national practice.

2. We recognize the contributions since the 2010 Summit of international initiatives and processes such as the Global Initiative to Combat Nuclear Terrorism (GICNT) and Global Partnership against the Spread of Weapons and Materials of Mass Destruction, within their respective mandates and memberships. We welcome the wider participation in the GICNT and the Global Partnership and value its extension beyond 2012. Noting the importance of strengthening coordination and complementarity among nuclear security activities, we welcome the proposal of the IAEA to organize an international conference in 2013. We welcome contributions from the industry, academia, institutes and civil society that promote nuclear security.

Role of the IAEA

3. We reaffirm the essential responsibility and central role of the IAEA in strengthening the international nuclear security framework, and recognize the value of the IAEA Nuclear Security Plan 2010-2013. We will work to ensure that the IAEA continues to have the appropriate structure, resources and expertise needed to support the implementation of nuclear security objectives. To this end, we encourage States in a position to do so and the nuclear industry to increase voluntary contributions to the IAEA's Nuclear Security Fund, as well as in-kind contributions. We also encourage continued IAEA activities to assist, upon request, national efforts to establish and enhance nuclear security infrastructure through its various support programs, and encourage States to make use of these IAEA resources.

Nuclear Materials

4. Recognizing that highly enriched uranium (HEU) and separated plutonium require special precautions, we reemphasize the importance of appropriately securing, accounting for and consolidating these materials. We also encourage States to consider the safe, secure and timely removal and disposition of nuclear materials from facilities no longer using them, as appropriate, and consistent with national security considerations and development objectives.

5. We recognize that the development, within the framework of the IAEA, of options for national policies on HEU management will advance nuclear security objectives. We encourage States to take measures to minimize the use of HEU, including through the conversion of reactors from highly enriched to low enriched uranium (LEU) fuel, where technically and economically feasible, taking into account the need for assured supplies of medical isotopes, and encourage States in a position to do so, by the end of 2013, to announce voluntary specific actions intended to minimize the use of HEU. We also encourage States to promote the use of LEU fuels and targets in commercial applications such as isotope production, and in this regard, welcome relevant international cooperation on high-density LEU fuel to support the conversion of research and test reactors.

Radioactive Sources

6. Taking into account that radioactive sources are widely used and can be vulnerable to malicious acts, we urge States to secure these materials, while bearing in mind their uses in industrial, medical, agricultural and research applications. To this end, we encourage States in a position to do so to continue to work towards the process of ratifying or acceding to the ICSANT; reflect into national practices relevant IAEA Nuclear Security Series documents, the IAEA Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary document on the IAEA Guidance on the Import and Export of Radioactive Sources; and establish national registers of high-activity radioactive sources

where required. We also commit to work closely with the IAEA to encourage cooperation on advanced technologies and systems, share best practices on the management of radioactive sources, and provide technical assistance to States upon their request. In addition, we encourage continued national efforts and international cooperation to recover lost, missing or stolen sources and to maintain control over disused sources.

Nuclear Security and Safety

7. Acknowledging that safety measures and security measures have in common the aim of protecting human life and health and the environment, we affirm that nuclear security and nuclear safety measures should be designed, implemented and managed in nuclear facilities in a coherent and synergistic manner. We also affirm the need to maintain effective emergency preparedness, response and mitigation capabilities in a manner that addresses both nuclear security and nuclear safety. In this regard, we welcome the efforts of the IAEA to organize meetings to provide relevant recommendations on the interface between nuclear security and nuclear safety so that neither security nor safety is compromised. We also welcome the convening of the High Level Meeting on Nuclear Safety and Security initiated by the UN Secretary-General, held in New York on 22 September 2011. Noting that the security of nuclear and other radioactive materials also includes spent nuclear fuel and radioactive waste, we encourage States to consider establishing appropriate plans for the management of these materials.

Transportation Security

8. We will continue efforts to enhance the security of nuclear and other radioactive materials while in domestic and international transport, and encourage States to share best practices and cooperate in acquiring the necessary technologies to this end. Recognizing the importance of a national layered defense against the loss or theft of nuclear and other radioactive materials, we encourage the establishment of effective national nuclear material inventory management and domestic tracking mechanisms, where required, that enable States to take appropriate measures to recover lost and stolen materials.

Combating Illicit Trafficking

9. We underscore the need to develop national capabilities to prevent, detect, respond to and prosecute illicit nuclear trafficking. In this regard, we encourage action-oriented coordination among national capacities to combat illicit trafficking, consistent with national laws and regulations. We will work to enhance technical capabilities in the field of national inspection and detection of nuclear and other radioactive materials at the borders. Noting that several countries have passed export control laws to regulate nuclear transfers, we encourage further utilization of legal, intelligence and financial tools to effectively prosecute offenses, as appropriate and consistent with national laws. In addition, we encourage States to participate in the IAEA Illicit Trafficking Database program and to provide necessary information relating to nuclear and other radioactive materials outside of regulatory control. We will work to strengthen cooperation among States and encourage them to share information, consistent with national regulations, on individuals involved in trafficking offenses of nuclear and other radioactive materials, including through INTERPOL's Radiological and Nuclear Terrorism Prevention Unit and the World Customs Organization.

Nuclear Forensics

10. We recognize that nuclear forensics can be an effective tool in determining the origin of detected nuclear and other radioactive materials and in providing evidence for the prosecution of acts of illicit trafficking and malicious uses. In this regard, we encourage States to work with one another, as well as with the IAEA, to develop and enhance nuclear forensics capabilities. In this regard, they may combine the skills of both traditional and nuclear forensics through the development of a common set of definitions and standards, undertake research and share information and best practices, as appropriate. We also underscore the importance of international cooperation both in technology and human resource development to advance nuclear forensics.

Nuclear Security Culture

11. Recognizing that investment in human capacity building is

fundamental to promoting and sustaining a strong nuclear security culture, we encourage States to share best practices and build national capabilities, including through bilateral and multilateral cooperation. At the national level, we encourage all stakeholders, including the government, regulatory bodies, industry, academia, nongovernmental organizations and the media, to fully commit to enhancing security culture and to maintain robust communication and coordination of activities. We also encourage States to promote human resource development through education and training. In this regard, we welcome the establishment of Centers of Excellence and other nuclear security training and support centers since the Washington Summit, and encourage the establishment of new centers. Furthermore, we welcome the effort by the IAEA to promote networking among such centers to share experience and lessons learned and to optimize available resources. We also note the holding of the Nuclear Industry Summit and the Nuclear Security Symposium on the eve of the Seoul Nuclear Security Summit.

Information Security

12. We recognize the importance of preventing non-state actors from obtaining information, technology or expertise required to acquire or use nuclear materials for malicious purposes, or to disrupt information technology based control systems at nuclear facilities. We therefore encourage States to: continue to develop and strengthen national and facility-level measures for the effective management of such information, including information on the procedures and protocols to protect nuclear materials and facilities; to support relevant capacity building projects; and to enhance cyber security measures concerning nuclear facilities, consistent with the IAEA General Conference Resolution on Nuclear Security(GC(55)/Res/10) and bearing in mind the International

Telecommunication Union Resolution 174. We also encourage States to: promote a security culture that emphasizes the need to protect nuclear security related information; engage with scientific, industrial and academic communities in the pursuit of common solutions; and support the IAEA in producing and disseminating improved guidance on protecting information.

International Cooperation

13. We encourage all States to enhance their physical protection of and accounting system for nuclear materials, emergency preparedness and response capabilities and relevant legal and regulatory framework. In this context, we encourage the international community to increase international cooperation and to provide assistance, upon request, to countries in need on a bilateral, regional, and multilateral level, as appropriate. In particular, we welcome the intent by the IAEA to continue to lead efforts to assist States, upon request. We also reaffirm the need for various public diplomacy and outreach efforts to enhance public awareness of actions taken and capacities built to address threats to nuclear security, including the threat of nuclear terrorism.

We will continue to make voluntary and substantive efforts toward strengthening nuclear security and implementing political commitments made in this regard. We welcome the information on the progress made in the field of nuclear security since the Washington Summit provided by the participants at this Seoul Summit. The next Nuclear Security Summit will be held in the Netherlands in 2014.

Highlights of Achievements and National Commitments, Seoul Nuclear Security Summit

[26-27 March 2012]

Algeria: Updating its domestic regulations to strengthen nuclear security; joining the Global Initiative to Combat Nuclear Terrorism (GICNT); established a Nuclear Security Training and Support Center in 2011

Argentina: Incorporating nuclear security in courses on nuclear and radiation safety in its training centers; ratified the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM); joined the GICNT in June 2010

Armenia: Ratifying the 2005 Amended CPPNM; enacting a Law on Regulation of State Register and Control of nuclear materials;

developing national rules on the physical protection of radioactive materials

Australia: Repatriating surplus stocks of HEU in 2013; inviting the IAEA's International Physical Protection Advisory Service (IPPAS) in 2013; developing technologies to improve nuclear detection and forensic capabilities

Azerbaijan: Established a national registry of all radioactive sources; strengthening export control system to combat illicit trafficking of nuclear materials

Belgium: Repatriating unneeded HEU and separated plutonium to the US; converting a research reactor and a processing facility for medical radioisotopes from using HEU to LEU; participating in a joint project to qualify high-density LEU fuel to replace HEU fuel in research reactors; contributing to the IAEA Nuclear Security Fund (NSF)

Brazil: Ratifying the 2005 Amended CPPNM; revising domestic regulations on nuclear and radiological security; establishing a Nuclear Security Support Centre

Canada: Ratifying the 2005 Amended CPPNM and the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT); repatriating US-origin spent HEU to the US; exploring an alternate method to replace HEU in the production of medical radioisotopes; supporting US-led HEU cleanout projects in Mexico and Viet Nam; championing the expansion of the membership of the Global Partnership; contributing to the IAEA NSF

Chile: Working toward the legislation of a Nuclear Security Bill; strengthening monitoring capability at critical border posts; drafting and updating national regulatory instruments on nuclear security; establishing a Nuclear Security Support Center; developing a centralized remote system to monitor radioactive sources

China: Converting a miniature research reactors in China and those in other countries from using HEU fuel to LEU fuel; advancing the establishment of a Center of Excellence on nuclear security; establishing a Radiation Detection Training Center in customs; implemented the Yangshan Port Pilot Program in Shanghai as part of the Megaport Initiative

Czech Republic: Repatriating remaining HEU from research reactors to its origin state; enacting a new version of the Atomic Act to harmonize it with international norms on nuclear security and safety

Denmark: Contributing to the IAEA NSF directed at activities in the wider Middle- Eastern and North African region; championing the development of a EU report on the security of nuclear power plants by the EU Ad Hoc Council Working Group

Egypt: Established an independent authority for controlling nuclear materials; intending to organize a regional workshop on IAEA ITDB in 2012

Finland: Revising its nuclear security regulatory requirements to reflect the latest developments of the IAEA's recommendations; conducting a follow-up mission of the IAEA's IPPAS; updating the national DBT (Design Basis Threat) process

France: Participating in a joint project to qualify high-density LEU fuel to replace HEU fuel in research reactors; working on a joint project to replace HEU targets with LEU targets in the production of medical radioisotopes; ratifying the 2005 Amended CPPNM and the ICSANT; hosting an international seminar on the IAEA IPPAS in 2013 in collaboration with the IAEA; repatriating French origin radioactive sources worldwide to France

Gabon: Enacting a new Bill on the Regulatory Framework of Nuclear and Radiation Safety, Security and Safeguards; establishing the Gabonese Agency on Nuclear Safety and Security

Georgia: Ratifying the 2005 Amended CPPNM; enacting the Law on Nuclear and Radiation Safety to reflect international norms on nuclear security and safety

Germany: Installing a special CBRN reporting Scheme for police and customs; championing a gift basket joint statement on security of radioactive sources

Hungary: Completing the conversion of research reactors from

using HEU fuel to LEU fuel in 2012 and repatriating remaining HEU to Russia in 2013; compiled a national central registry of all radioactive materials and waste above exemption level; upgrading the physical security system in sites of category 1 or 2 radioactive sources

India: Advancing the establishment of a Global Centre for Nuclear Energy Partnership; establishing an independent Nuclear Safety Regulatory Authority; pledged US 1 million dollars to the IAEA NSF in 2012-13; developed an advanced heavy water reactor based on LEU with new safety and proliferation-resistant features

Indonesia: Ratifying the ICSANT; installing radioactive portal monitors at major key seaports; championing a gift basket joint statement on national legislation implementation kit on nuclear security; preparing a Presidential Decree on the safety and security of nuclear institutions; converting HEU to LEU in the production of radio isotope

Israel: ratifying the ICSANT; ratified the 2005 Amended CPPNM in March 2012; completed the repatriation of US-origin HEU spent fuel from its Soreq research reactor; operating the Megaport Initiative

Italy: Working to repatriate excess HEU and plutonium to the US by the 2014 Summit; ratifying the 2005 Amended CPPNM and the ICSANT; developing a National Nuclear Security Plan; intending to make permanent the International School on Nuclear Security in Trieste; operating the Megaport Initiative

Japan: Establishing an independent Nuclear Regulatory Agency; augmenting measures to overcome the vulnerabilities in nuclear facilities; established US-Japan Nuclear Security Working Group in November 2010; working on the feasibility study for converting the Kyoto Univ. Critical Assembly to LEU use; working toward the shipment of HEU fuel in Material Testing Reactor to the US; contributing to the IAEA NSF; championing a gift basket joint statement on transport security

Jordan: Creating a counter nuclear smuggling team; championing a gift basket joint statement on activity and cooperation to counter nuclear smuggling

Kazakhstan: Moving spent nuclear fuels which contain more than 10 tonnes of HEU and 3 tonnes of weapons-grade Pu equivalent to 775 nuclear weapons to a safe storage facility; converting a research reactor from using HEU fuel to LEU fuel; strengthening nuclear security measures at the former nuclear test site "Semipalatinsk"; joined the Global at Partnership January 2012; developing the Kazakhstan Regional Training Centre for accounting, control and physical protection of nuclear materials and facilities

Lithuania: Establishing a Nuclear Security Centre of Excellence; hosting a regional workshop on the implementation of the UN Security Council Resolution 1540 in June 2012

Malaysia: Ratifying the 2005 Amended CPPNM and the ICSANT; joining the GICNT; established a Nuclear Security Support Centre; planning to expand the Megaport Initiative to Penang Port in 2012

Mexico: Completed the removal of all HEU stockpiles in February 2012; ratifying the 2005 Amended CPPNM; hosting the 2013 GICNT Plenary Meeting; completing a two-year pilot program on building national capacity to implement the UN Security Council Resolution 1540; joined the GICNT in June 2010

Morocco: Ratifying the 2005 Amended CPPNM; enhancing border control and national capacity to detect illicit trafficking; legislating a new law on nuclear and radiological safety and security which envisages the establishment of an independent authority for nuclear safety and security; established a centre of excellence

The Netherlands: Working on a joint project to replace HEU targets with LEU targets in the production of medical radioisotopes; contributing to the IAEA NSF; establishing a Center of Excellence; organizing an international table top exercise on nuclear forensics in November 2012; making mandatory the use of a DBT concept on cyber terrorism for the nuclear sector as from January 2013

New Zealand: Ratifying the 2005 Amended CPPNM and the ICSANT; developing a new radiation safety legislation; provided financial contribution for the work of WINS

Nigeria: Converting a miniature research reactor from using HEU fuel to LEU fuel in cooperation with China, US and the IAEA; ratifying the ICSANT; passing the Nuclear Safety, Security and Safeguards Bill to domesticate international treaties; establishing a nuclear security supporting centre

Norway: Ratifying the ICSANT within the year 2012; contributing to the IAEA NSF; continues to provide financial contribution to the Global Partnership; hosted the 2nd international symposium on HEU minimization in January 2012

Pakistan: Opening Nuclear Security Training Center to act as a regional and international hub; deploying Special Nuclear Material Portals on key exit and entry points to counter the illicit trafficking of nuclear and radioactive materials

Philippines: Ratifying the 2005 Amended CPPNM, and the ICSANT; joined the GICNT in June 2010; drafting regulation on the security of radioactive materials during transport; expanding the Megaport Initiative to Cebu port in 2012

Poland: Removing spent HEU nuclear fuel from research reactors by the end of 2016; completing the conversion of MARIA reactor in the first quarter of 2014; established a system of accounting and controlling nuclear material as well as a registry of radioactive sources

Republic of Korea: Championing a joint project to develop high-density LEU fuel to replace HEU fuel in research reactors; launching a pilot project of real time tracking system of radiological materials based on GPS technology in Viet Nam; ratifying the 2005 Amended CPPNM and the ICSANT; inviting the IAEA's IPPAS mission in 2013; contributing US 1 million dollars to the IAEA NSF; advancing the establishment of a Center of Excellence

Romania: Intending to provide assistance and expertise on conversion of research reactor from using HEU to LEU and repatriation of HEU; inviting IAEA's IPPAS mission; contributing to the IAEA NSF; operating the Megaport Initiative

Russia: Converted excess military HEU to LEU for use in nuclear power plants; received Russian-origin HEU from those countries that have been provided with Russian HEU; assessing the economic and technical feasibility of converting six research reactors from using HEU fuel to LUE fuel jointly with the US; hosting a workshop on nuclear security culture in 2012 in collaboration with the IAEA; organizing a GICNT training on transport security of nuclear and radiological materials in late 2012

Saudi Arabia: Established a Center of Excellence; pledged to contribute US 500,000 dollars to the UN Security Council 1540 Committee

Singapore: Ratifying the 2005 Amended CPPNM and the ICSANT; establishing a national nuclear forensics laboratory by 2013; hosting an ASEM seminar on nuclear safety in 2012; joined the GICNT in June 2010

South Africa: Successfully converted Mo-99 production from the use of HEU to LEU; ratifying the 2005 Amended CPPNM; considering establishing a Center of Excellence in collaboration with the IAEA

Spain: Contributing to the IAEA NSF; serving as the Implementation Assessment Group (IAG) Coordinator for GICNT since 2010; operating the Megaport Initiative; amended anti-smuggling act and export control regulations to effectively respond to illicit nuclear trafficking; launched a nuclear forensics task force

Sweden: Removed several kilograms of separated plutonium to the US in March 2012; ratifying the ICSANT; contributing to the IAEA NSF; implementing the recommendations from the IAEA's IPPAS mission carried out in May 2011

Switzerland: Implementing full administrative compatibility with the IAEA Code of Conduct on the Safety and Security of Radioactive Sources in future revisions of pertinent legislations; drafting a strategy for the protection against cyber attacks

Thailand: Acceding to the CPPNM and ratifying the ICSANT; establishing a nuclear forensics center; operating the Megaport Initiative; initiating the proposal of establishing a network of nuclear regulatory bodies in Southeast Asia; joined the GICNT in June 2010; considering joining the Proliferation Security Initiative (PSI)

Turkey: Ratifying the 2005 Amended CPPNM and the ICSANT; inviting the IAEA's IPPAS mission for a follow-up review in 2012; drafting a new regulation on the physical protection of the nuclear facilities and nuclear material

United Arab Emirates: Establishing a regulatory infrastructure regarding the management of radioactive material; issued new regulations related to nuclear security

Ukraine: Completed the removal of all HEU stockpile; developing a new plan on nuclear security assistance in cooperation with the IAEA; established the State Nuclear Inspectorate to enhance regulatory aspects of nuclear security; established the radioactive detection system to secure the border crossing points in the North of the country and at all main airports and interstate motorways

United Kingdom: Intending to share cutting edge technology in detecting radiological and nuclear material; supporting countries in ratifying the 2005 Amended CPPNM and the ICSANT; chairing a working group on coordinating Centers of Excellence within the Global Partnership; championing a gift basket joint statement on nuclear information security

United States: Put into effect the Plutonium Disposal Agreement signed with Russia on the disposal of 68 tonnes of plutonium (equivalent to 17,000 nuclear weapons); converted 10.5 tonnes of HEU to LEU for use as fuel in nuclear power plants; assisted Russia in converting 2 tonnes of HEU to LEU; assisted the removal of over 400 kilograms of HEU from eight countries; championing gift basket joint statements on the contributions of the GICNT and on the Nuclear Security Summit outreach efforts; championing gift basket joint statements on nuclear security training and support centers and on the Global Partnership; removing all category I and II material at Lawrence Livermore National Laboratory; intending to host a first "International Regulators Conference on Nuclear Security" by the end of 2012; completing new security assessments at all NNSA facilities and completing security upgrades at the Y-12 National Security Complex and a Los Alamos National Laboratory facility; enhancing force-on-force and performance testing for US facilities, recovering over 4,000 unneeded radiological sources; upgrading physical protection at over 175 domestic facilities; enhancing the capability to counter nuclear smuggling; conducting exercise to increase nuclear preparedness; intending to host a workshop on nuclear security as the chair of the Global Partnership; intending to support WINS activities

Viet Nam: Repatriating spent HEU fuels to Russia (expected to be completed in 2013); launching a pilot project on the establishment of a real time tracking system of radiological materials in the country in cooperation with the Republic of Korea and the IAEA; ratifying the 2005 Amended CPPNM; operating the Megaport Initiative; joined the GICNT in June 2010.

2012 Seoul Nuclear Security Summit: Key Facts

[Seoul, 2012]

Participants

53³⁴ heads of state and government, as well as representatives of the United Nations (UN), International Atomic Energy Agency (IAEA), European Union (EU) and INTERPOL, attended the 2012 Seoul Nuclear Security Summit. Compared to the 2010 Washington Summit, there were seven new participants: Azerbaijan, Denmark, Gabon, Hungary, Lithuania, Romania and INTERPOL. The EU was represented by both the President of the European Council and the President of the European Commission, making the number of participating leaders 58 in total.

Summit Program

³⁴ Republic of Korea(Chair), Algeria, Argentina, Armenia, Australia, Azerbaijan, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Egypt, Finland, France, Gabon, Georgia, Germany, Hungary, India, Indonesia, Israel, Italy, Japan, Jordan, Kazakhstan, Lithuania, Malaysia, Mexico, Morocco, The Netherlands, New Zealand, Nigeria, Norway, Pakistan, Philippines, Poland, Romania, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, United Arab Emirates, Ukraine, United Kingdom, United States, Viet Nam.

The Seoul Summit was held on March 26-27 at the COEX Centre. The Summit officially began with a Welcome Reception and a Working Dinner on the night of the 26th, and on the 27th there was a Morning Session, a Working Luncheon and an Afternoon Session.

The agenda for each session was as follows:

- March 26 (Monday)
 - Working Dinner: Review of the Progress Made Since the 2010 Washington Summit
- March 27 (Tuesday)
 - Plenary Session I: National Measures and International Cooperation to Enhance Nuclear Security, including Future Commitments
 - Working Lunch : Nuclear Security-Safety Interface
 - Plenary Session II: National Measures and International Cooperation to Enhance Nuclear Security, including Future Commitments (cont.)

Seoul Communiqué

The Seoul Communiqué builds on the objectives and measures set out in the 2010 Washington Communiqué to identify 11 areas of priority and importance in nuclear security and presents specific actions in each area.

The 11 areas are as follows: the global nuclear security architecture; the role of the IAEA; nuclear materials; radioactive sources; nuclear security and safety; transportation security; combating illicit trafficking; nuclear forensics; nuclear security culture; information security; and international cooperation.

The Seoul Communiqué sets out the following specific actions in the above 11 areas:

- ✓ Eliminating and disposing of highly enriched uranium (HEU) no longer in use
- ✓ Minimizing the use of HEU
 - Encouraging voluntary announcements by the end of 2013 of specific actions to minimize the use of HEU
- ✓ Welcoming international efforts to develop high-density low-enriched uranium (LEU) fuel for the purpose of replacing HEU fuels in research reactors and medical isotope production facilities
- ✓ Seeking to bring the 2005 amended Convention on the Physical Protection of Nuclear Materials (CPPNM) into effect by 2014
- ✓ Welcoming an international conference in 2013 organized by the IAEA to coordinate nuclear security activities
 - Encouraging voluntary contributions to the IAEA Nuclear Security Fund
- ✓ Developing options for national policies on HEU management within the framework of the IAEA
- ✓ Encouraging national measures and international cooperation to prevent radiological terrorism
- ✓ Strengthening the physical protection of nuclear facilities and enhancing emergency response capabilities in the case of radiological accidents while comprehensively addressing nuclear security and nuclear safety concerns
- ✓ Strengthening the management of spent nuclear fuels and radioactive wastes
- ✓ Strengthening the protection of nuclear materials and radioactive sources in transport
 - Encouraging the establishment of a system to effectively manage and track such materials on a national level
- ✓ Preventing the illicit trafficking of nuclear materials
 - Strengthening technical capabilities to search for and detect illicitly trafficked nuclear materials and encouraging the

sharing of information on persons involved in such activities by cooperating with the INTERPOL

- Building nuclear forensics capacity to identify the source of illicitly trafficked nuclear materials
- Welcoming the establishment of Centers of Excellence for training and education in nuclear security, and supporting networking activities between each Center
- Strengthening the nuclear security culture
 - Encouraging the participation of industry, academia, the media, NGOs and other civil actors in the discussions on nuclear security
- Strengthening the protection of sensitive nuclear security-related information and enhancing cyber security at nuclear facilities
- Promoting international cooperation, such as the provision of assistance to countries for the enhancement of national nuclear security capabilities upon request
- The hosting of the next Nuclear Security Summit in the Netherlands

There are a number of points particularly worthy of note in the Seoul Communiqué. Firstly, it provides important timelines for advancing nuclear security objectives, such as the target year (end of 2013) for states to announce voluntary actions on minimizing the use of HEU and the goal year (2014) for bringing the amended CPPNM into effect. Secondly, it reflects the need to address both the issues of nuclear security and nuclear safety in a coherent manner for the sustainable peaceful uses of nuclear energy. It also emphasizes the need to better secure spent nuclear fuel and radioactive waste. Thirdly, it sets out specific measures to prevent radiological terrorism, an issue which was only briefly touched upon at the Washington Summit.

Achievements and Commitments by Participating Countries

32 countries made over 70 commitments on specific actions to enhance nuclear security at the Washington Summit, and the national progress reports submitted by the participating countries have shown that nearly all of these have been achieved. Likewise, over 100 commitments were made from participating countries at the Seoul Summit.

The following is a summary of the progress made on the commitments announced at the Washington Summit, as well as new commitments made at the Seoul Summit.

(Removing HEU or Converting HEU to Non-military Use)

Since the Washington Summit, around 530 kilograms of HEU from eight countries have been removed for disposal, an amount enough to produce about 21 nuclear weapons. In addition, several countries newly committed to repatriate their unneeded HEU.

In particular, Ukraine and Mexico accomplished a total "cleanout" of all stockpiles of HEU just prior to the Seoul Summit by returning them to Russia and the US, respectively.

During the past two years since the Washington Summit, HEU equivalent to around 3,000 nuclear weapons in Russia and the US has been downblended to LEU.

On the minimization of the use of HEU, the Seoul Communiqué encourages participants by the end of 2013 to announce voluntary specific actions to minimize HEU. It also recognizes that the development within the framework of the IAEA of options for national policies on HEU management will advance nuclear security objectives.

(Disposing and Securing Plutonium)

Russia and the US are working on implementing the Plutonium Management and Disposition Agreement signed between the two countries at the Washington Summit, which,

when implemented, will result in the disposal of plutonium enough for 17,000 nuclear weapons.

Kazakhstan, in cooperation with Russia, the US, the UK and the IAEA, secured spent nuclear fuel which contained enough HEU and plutonium to make several hundreds of nuclear weapons by moving them to a new facility for a long-term storage in November 2010.

Sweden returned several kilograms of Plutonium to the US immediately before the Seoul Nuclear Security Summit.

(Converting Research Reactors and Medical Isotope Production Facilities using HEU fuel to LEU fuel)

The Czech Republic, Mexico and Viet Nam have converted their research reactors using HEU fuel to LEU fuel since the Washington Summit. In addition, several countries have presented their plans to this end.

In particular, it is worthy of note that Belgium, France, the Republic of Korea and the US announced a joint project on assessing the effectiveness of a high-density LEU fuel which may replace HEU fuels in high performance research reactors. If the technology, which is based on the centrifugal atomization method developed by the Republic of Korea, is proven to be effective, it will significantly contribute to the minimization of the use of civilian HEU worldwide.

Furthermore, Belgium, France, the Netherlands and the US announced a joint project to convert the production of medical isotope molybdenum-99 (Mo-99) from the use of HEU targets to LEU targets by 2015. This effort represents a meaningful progress both in terms of enhancing human welfare and eliminating the threat of nuclear terrorism.

(Strengthening Nuclear Security-Related International Conventions and Multilateral Initiatives)

During the past two years since the Washington Summit, 20 additional countries have ratified the amended Convention on Physical Protection of Nuclear Material (CPPNM), making the total number of states party to the Convention 55. Meanwhile, 14 countries have newly ratified the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT), increasing the number of states party to the Convention to 79. Among the 34 countries which have newly joined the two Conventions, 18 countries are participants in the Nuclear Security Summit. Meanwhile, over 10 additional countries are proceeding with the process of the ratification of the two Conventions. As for the Republic of Korea, it obtained the approval of the National Assembly for the ratification of both Conventions in December 2011 and is in the process of amending its domestic law to deposit the instrument of ratification. With regard to the amended CPPNM, participating states agreed to work together to bring it into force by 2014 as stated in the Seoul Communiqué.

Six countries - Argentina, Mexico, the Philippines, Singapore, Thailand, and Viet Nam - have followed through on their pledges made at the Washington Summit to join the Global Initiative to Combat Nuclear Terrorism (GICNT), thereby making the number of partners to the GICNT 82 in total. In addition, Algeria and Malaysia have indicated their intention to join the GICNT. Kazakhstan became the 24th member to join the Global Partnership against the Spread of Weapons and Materials of Mass

Destruction in January 2012. The decision to extend the mandate of the Global Partnership and the Security Council Committee established pursuant to Resolution 1540 (2004) was made in 2011; the Seoul Communiqué welcomes the extension and encourages wider participation in both initiatives.

The IAEA plans to organize an international conference in 2013 aimed at strengthening coordination among nuclear security-related multilateral initiatives.

(Establishing Centers of Excellence)

Since the Washington Summit, countries are establishing Centers of Excellence (CoE) to enhance national nuclear security capabilities. In addition to the six countries - China, India, Italy, Japan, Kazakhstan and the Republic of Korea - which have announced plans to establish a CoE at the Washington Summit, around ten countries are either establishing a CoE or have plans in this regard.

The IAEA is working to establish an international network between the CoEs to facilitate the sharing of experience, and in so doing, create a synergy effect.

(Supporting the Activities of the IAEA)

A number of countries, including Belgium, Canada, Denmark, France, Japan, the Republic of Korea, Norway, Netherlands and the UK, have pledged contributions to the IAEA Nuclear Security Fund.

Four countries - France, Netherlands, Sweden and the UK - have received a review mission of the IAEA's International Physical Protection Advisory Service (IPPAS) since the Washington Summit, and Australia, Finland, the Republic of Korea, Romania and the US have presented plans in this regard.

(Countering the Illicit Trafficking of Nuclear and Radiological Materials)

51 countries out of the 53 Summit participants are participants in the IAEA's Illicit Trafficking Database. Singapore became the newest participant early this March.

A number of joint proposals were made, including on countering nuclear smuggling and the security of radioactive sources. Japan released a statement on transport security jointly with France, the Republic of Korea, the UK and the US. Participants agreed to enhance international cooperation on nuclear forensics which will enable the identification of the origin of stolen nuclear materials.

A number of countries have newly joined the Megaport Initiative led by the US to prevent the illicit trafficking of nuclear materials and radioactive sources through seaports.

The Republic of Korea and Viet Nam are working on a pilot project on establishing within Viet Nam a system to track radiological materials using GPS technology in cooperation with the IAEA. The project will contribute to securing and preventing the theft of radiological materials.

(Hosting of Nuclear Security Conferences and Events)

The US presented its intention to host a first "International Regulators Conference on Nuclear Security" by the end of 2012; France plans to host an international conference in 2012 to assist the implementation of United Nations Security Council Resolution 1540; Sweden presented its plan to host the second INTERPOL Radiological and Nuclear Trafficking and Terrorism Analysis Conference in April 2012; Mexico announced that it will be hosting the 2013 GICNT Plenary Meeting; the Netherlands revealed that it would organize a tabletop exercise in November 2012 to foster international cooperation in the field of nuclear forensics; and Finland introduced its plan to host IAEA International Workshop on Nuclear Security Culture in the fall of 2012. In addition, several countries proposed plans to host conferences and events related to nuclear security.

Future Plans

The next Nuclear Security Summit will be held in 2014 in the Netherlands. Several Sherpa Meetings and Sous-Sherpa Meetings will be held in the lead up to the Netherlands Summit.

Final Communiqué of the 2014 The Hague Nuclear Security Summit

[The Hague, 2014]

We, the leaders, met in The Hague on 24 and 25 March 2014 to strengthen nuclear security, reduce the continuing threat of nuclear terrorism and assess the progress we have made since the Washington Summit in 2010. In preparing for this Summit we have used the Washington and Seoul Communiqués as the basis for our work and have been guided by the Washington Work Plan.

Therefore,

1. We reaffirm our commitment to our shared goals of nuclear disarmament, nuclear non-proliferation and peaceful use of nuclear energy. We also reaffirm that measures to strengthen nuclear security will not hamper the rights of States to develop and use nuclear energy for peaceful purposes.

2. This Summit focuses on strengthening nuclear security and preventing terrorists, criminals and all other unauthorised actors from acquiring nuclear materials that could be used in nuclear weapons, and other radioactive materials that could be used in radiological dispersal devices. Achieving this objective remains one of the most important challenges in the years to come.

3. Our summit in The Hague builds on the Washington and Seoul Summits, and we note with satisfaction that most of the commitments that participants made during previous summits have already been fulfilled. We welcome the considerable progress made in strengthening nuclear security, while recognising that continuous efforts are needed to achieve that goal.

Fundamental responsibility of States

4. We reaffirm the fundamental responsibility of States, in accordance with their respective obligations, to maintain at all times effective security of all nuclear and other radioactive materials, including nuclear materials used in nuclear weapons, and nuclear facilities under their control. This responsibility includes taking appropriate measures to prevent non-state actors from obtaining such materials – or related sensitive information or technology – which could be used for malicious purposes, and to prevent acts of terrorism and sabotage. In this context we emphasise the importance of robust national legislation and regulations on nuclear security.

International cooperation

5. At the same time we emphasise the need to further strengthen and coordinate international cooperation in the field of nuclear security. Much can be done through the International Atomic Energy Agency (IAEA) and other intergovernmental organisations and initiatives, and through bilateral and regional cooperation.

6. International cooperation fosters the capacity of States to build and sustain a strong nuclear security culture and effectively combat nuclear terrorism or other criminal threats. We encourage States, regulatory bodies, research and technical support organisations, the nuclear industry and other relevant stakeholders, within their respective responsibilities, to build such a security culture and share good practices and lessons learned at national, regional and international level.

7. We support stronger international and regional cooperation with regard to education, awareness raising and training, including through nuclear security centres of excellence and support. We therefore welcome the expansion of nuclear security networks for education, and for training and support, by the IAEA and other international organisations.

Strengthened international nuclear security architecture

8. We recognise the need for a strengthened and comprehensive international nuclear security architecture, consisting of legal instruments, international organisations and initiatives, internationally accepted guidance and good practices.

Legal instruments

9. We encourage States that have not yet done so to become party to the Convention on the Physical Protection of Nuclear Material (CPPNM) and to ratify its 2005 amendment. We welcome the new ratifications of the CPPNM amendment since the Seoul Summit. As foreseen in Seoul, we will continue to work towards the entry into force of the 2005 amendment later this year. We stress the need for all contracting parties to comply fully with all its provisions.

10. We underline the importance of the International Convention for the Suppression of Acts of Nuclear Terrorism and stress the need for all contracting Parties to comply fully with all its provisions. We welcome the new ratifications and accessions since the Seoul Summit and encourage all States to become party to this Convention.

11. We welcome efforts aimed at developing model legislation on nuclear security, which could provide States with building blocks to develop comprehensive national legislation in accordance with their own legal systems and internal legal processes.

Role of the International Atomic Energy Agency

12. We reaffirm the essential responsibility and the central role of the IAEA in the international nuclear security architecture. We welcome the increased prominence of nuclear security in the Agency's work and its leading role in coordinating activities among international organisations and other international initiatives. The International Conference on Nuclear Security: Enhancing Global Efforts of July 2013 demonstrated the IAEA's ability to enhance political awareness and to address policy, technical and regulatory aspects of nuclear security.

13. We attach great value to the Agency's support for national efforts to improve nuclear security. Its nuclear security guidance, contained in the IAEA Nuclear Security Series of publications, provides the basis for effective nuclear security measures at national level. We encourage all States to utilise this guidance as appropriate.

14. We welcome the Integrated Nuclear Security Support Plans (INSSP) with which the IAEA assists States in consolidating their nuclear security needs into comprehensive plans. We encourage States to use their INSSPs for making progress in nuclear security, as appropriate.

15. We underline the benefits of IAEA review and advisory services provided through mechanisms such as the International Physical Protection Advisory Service (IPPAS). To date, 62 IPPAS missions have been undertaken in 40 countries. While acknowledging the voluntary nature of these services, we encourage all States to utilise them and share the lessons learned without detriment to the protection of sensitive information.

16. The role of the IAEA will be crucial in the years ahead. Therefore we encourage greater political, technical and financial support for the IAEA, including through its Nuclear Security Fund, to ensure that it has the resources and expertise needed to carry out its mandated nuclear security activities.

Role of the United Nations

17. We welcome the significant contribution made by the United Nations to strengthening nuclear security – particularly in promoting the ratification and effective implementation of

international conventions and protocols against terrorism, including nuclear terrorism – as well as the work undertaken by the UN Security Council Committee, established pursuant to resolution 1540. We urge States to fully implement resolution 1540 and subsequent resolutions, and to continue to report such efforts on a regular basis. We also recognise the important contribution of the United Nations to disarmament and non-proliferation.

Role of other international initiatives

18. We recognise the contribution made by the Global Initiative to Combat Nuclear Terrorism (GICNT) and the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction since the 2010 and 2012 Nuclear Security Summits, within their respective mandates and memberships. Both have expanded in membership and have become valuable platforms for coordination and cooperation on nuclear security.

19. We welcome regional initiatives, which play an important role in strengthening nuclear security collaboration within regions while supporting overall nuclear security goals. We welcome continued developments in this area.

Voluntary measures

20. We have identified a range of voluntary measures States may consider taking to show that they have established effective security of their nuclear materials and facilities while protecting sensitive information. Such voluntary measures may include publishing information about national laws, regulations and organisational structures; exchanging good practices; inviting IAEA review and advisory services and other reviews and following up on their conclusions; providing information through relevant existing reporting mechanisms and forums; further developing training of personnel involved in nuclear security by setting up and stimulating participation in training courses and applying domestic certification schemes. We note that many of the States participating in this summit already take such measures, in some cases in a regional context, and are using them to showcase their nuclear security efforts, thereby building national and international confidence in the effectiveness of their nuclear security regimes.

Nuclear material

21. We recognise that highly enriched uranium (HEU) and separated plutonium require special precautions and that it is of great importance that they are appropriately secured, consolidated and accounted for. Over the past four years we have made considerable progress in safe, secure and timely consolidation inside countries and in removal to other countries for disposal. Furthermore, a considerable amount of HEU has been down-blended to low-enriched uranium (LEU) and separated plutonium converted to mixed oxide (MOX) fuel. We encourage States to minimise their stocks of HEU and to keep their stockpile of separated plutonium to the minimum level, both as consistent with national requirements.

22. We encourage States to continue to minimise the use of HEU through the conversion of reactor fuel from HEU to LEU, where technically and economically feasible, and in this regard welcome cooperation on technologies facilitating such conversion. Similarly, we will continue to encourage and support efforts to use non-HEU technologies for the production of radioisotopes, including financial incentives, taking into account the need for an assured and reliable supply of medical isotopes.

Radioactive sources and materials

23. Radioactive sources are used in every country in the world, whether in industry, medicine, agriculture or research. At the same time, high-activity radioactive sources can be used for malicious acts. We have made progress in better protecting sources, inter alia through national registers. Considerably more States have amended their national legislation and regulations, taking into account the guidance

in the IAEA Code of Conduct on the Safety and Security of Radioactive Sources and Nuclear Security Series recommendations. We are committed to promoting this guidance, first and foremost through the IAEA. We seek to secure all radioactive sources, consistent with international guidance.

24. We encourage States which have not yet done so to establish appropriate security plans for the management of spent nuclear fuel and high-level radioactive waste.

Nuclear security and safety

25. We recognise that nuclear security and safety have the common aim of protecting human health, society and the environment. We reaffirm that nuclear safety measures and nuclear security measures need to be designed and managed in a coherent and coordinated manner in the specific areas where nuclear security and nuclear safety overlap. In these areas, efforts to further improve nuclear security might benefit from experience gained with nuclear safety. We emphasise the need to develop a nuclear security culture, with a particular focus on the coordination of safety and security. Sharing good practices, without detriment to the protection of sensitive information, might also be beneficial. The principle of continuous improvement applies to both safety and security. In this regard we acknowledge the IAEA Nuclear Security Guidance Committee and the IAEA Commission on Safety Standards and their activities aimed at properly addressing safety and security interface issues.

26. We reaffirm the need to maintain effective emergency preparedness, response and mitigation capabilities in a manner that addresses both nuclear security and nuclear safety.

Nuclear industry

27. Nuclear operators have the primary responsibility to secure their nuclear material and as such have an important role to play in maintaining and strengthening nuclear security. Operators' security systems should be effective and place a strong emphasis on an effective security culture, physical protection and material accountancy. This needs to be demonstrated nationally by regular routine tests and evaluations, including performance testing and self-evaluation where appropriate. We take note of the emerging interest in using performance-based regulations where appropriate. We support a more intensive dialogue between operators and government bodies, including the national regulator, which should be functionally independent, with a view to improving nuclear security regulations and regulatory effectiveness.

28. In this regard, we recognise the holding of the Nuclear Industry Summit organised as a side event to this Nuclear Security Summit as a positive engagement by the industry with nuclear security issues.

Information and cyber security

29. We recognise the growing importance of information security, including information held on computer systems, related to nuclear material and technology. Security is essential to preventing unauthorised actors from obtaining information, technology and expertise required for acquiring and using nuclear materials for malicious purposes. In these areas further cooperation between government, industry and academia is desirable. We promote a nuclear security culture that emphasises the need to protect sensitive expertise and information and discourages publication of such information in online media and in public forums.

30. In order to address the growing threat of cyber attacks, including on critical information infrastructure and control systems, and their potential impact on nuclear security, we encourage States and the private sector to take effective risk mitigation measures to ensure that the systems and networks of nuclear facilities are appropriately secured. Unauthorised

access to these systems could compromise the safe and secure operation of the facility as well as the confidentiality, integrity and availability of the relevant information.

Nuclear Transportation

31. We reaffirm our determination to further enhance the security of nuclear and other radioactive materials while in domestic and international transport. We acknowledge that sharing good practices and lessons learned, without detriment to the protection of sensitive information, can be useful contributions to this goal. We encourage States, the relevant industries and centres of excellence to be involved in these efforts at both national and international level.

Illicit Trafficking

32. We underline the vital importance of using all tools at our disposal to locate and secure nuclear material out of regulatory control, including effective export control arrangements and law enforcement mechanisms, to regulate nuclear transfers and counter illicit transfers of nuclear material. In this context legislative measures are necessary to enable national prosecutions. We underscore our commitment to sharing information, best practices and expertise, subject to States' national laws and procedures, through bilateral, regional and multilateral mechanisms in relevant areas such as nuclear detection, forensics, law enforcement, and the development of new technologies to enhance enforcement capacity of customs personnel. We urge States to participate in the IAEA Incident and Trafficking Database and to provide the IAEA with relevant information in a timely manner. In the interest of supporting law enforcement efforts, we encourage States, consistent with their respective national regulations and international obligations, to expand information-sharing, including through INTERPOL and the World Customs Organization (WCO), regarding individuals involved in the illicit trafficking of nuclear or other radioactive materials.

Nuclear Forensics

33. Nuclear forensics is developing into an effective tool for determining the origin of nuclear and other radioactive materials and providing evidence for the prosecution of acts of illicit trafficking and other malicious acts. We welcome the progress and recent development of several instruments that improve the use of traditional forensic methods, and emphasise the need to further develop innovative forensic methods and tools for investigating incidents involving nuclear and other radioactive materials. We encourage further international cooperation, within the IAEA and other relevant international organisations, aimed at connecting and enhancing traditional and nuclear forensics capabilities, where feasible, and establishing national nuclear forensics databases to enable better determination of the origin of material. We welcome the organisation by IAEA of a conference on advances in nuclear forensics in July 2014. Future of Process

34. Continuous efforts are needed to achieve our common goal of strengthening the international nuclear security architecture and we recognise that this is an ongoing process.

35. Our representatives will therefore continue to participate in different international forums dealing with nuclear security, with the IAEA playing the leading role in their coordination.

36. The United States will host the Nuclear Security Summit in 2016.

Summary of Highlights of Achievements and National Commitments, The Hague Nuclear Security Summit³⁵

[24-25 March 2014]

Algeria: Amended its penal code to criminalise malicious use of radioactive materials, including in general acts of nuclear terrorism; putting in place strong regulatory provisions to strengthen nuclear security, namely in the area of physical protection of nuclear materials as well as facilities and security of radioactive sources; developed training programmes to meet national needs and international commitments and established a Master's degree course in Nuclear Security and included nuclear security and physical protection modules in the nuclear engineering education programmes; organised a regional workshop on nuclear forensics in cooperation with the IAEA

Argentina: Organized jointly with the IAEA a Regional Workshop on Facilitating Adherence to the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) in Buenos Aires; converted research and multipurpose reactors, both nationally and internationally, to operate with LEU; undertaking significant efforts towards strengthening border control national infrastructures and capabilities

Armenia: Ratified the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material in 2013; accessed the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management in 2013; adopted the Law on Amendment and Additions to the Law on Safe Utilization of Nuclear Energy for Peaceful Purposes in 2013; updated and approved the Integrated Nuclear Security Support Plan for 2013-2015; conducted a Joint WMD Land Interdiction Exercise with Georgia to enhance interdiction-related capabilities of nuclear and radioactive materials in 2012; established a Laboratory for Technical and Forensic Analysis of Nuclear and Radiological Material with the support of the U.S. Department of State's Preventing Nuclear Smuggling Program (PNSP)

Australia: Revised its Design Basis threat (DBT) in 2012, which included a cyber-security component for the first time; carried out a series of multi-agency exercises in 2013 to test the operator's security management system and the connectivity and coordination of the national counter-terrorism plans and arrangement; hosted a regional workshop on IPPAS missions in 2012; hosted a nuclear forensics seminar and table-top exercise in 2012; shut-down its HEU-based research reactor, repatriated all its spent fuel, and now uses only LEU technology to fuel its research reactor and produce radiopharmaceuticals; repatriated surplus stocks of HEU in 2012

Azerbaijan: Considering ratification of the 2005 Amendment to the CPPNM; working on further improving domestic legislation to ensure the implementation of obligations emanating from international non-proliferation agreements; adopted its first "Maritime Security Strategy" that defines proliferation of nuclear and other weapons of mass destruction and their means of delivery and related materials as one of the key threats against maritime security; developed a comprehensive national control system; hosted a "GUAM Roundtable on Building Security Culture" to examine current CBRN security risks and challenges in particular within the GUAM region

Belgium: Ratified the 2005 Amendment to the Convention of the Physical Protection of Nuclear Material (CPPNM) in 2013; strengthened and updated its legal and regulatory framework

³⁵ This section has been independently compiled by the authors and should not be considered exhaustive. Official transcripts of all official statements and progress reports can be found here: <http://www.state.gov/t/isn/nuclearsecuritysummit2014/index.htm>.

regarding physical protection of nuclear and radioactive materials; restructuring the physical protection systems of nuclear facilities; hosted three nuclear security related workshops in 2013; launched a conversion programme with the assistance of the United States to convert a research reactor and a processing facility for medical radio-isotopes to LEU; transferred significant quantities of excess HEU and separated plutonium to the United States in 2014

Brazil: Finalising the necessary inter-ministerial consultations with a view to submitting the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) to Legislative approval; engaged in efforts of the MERCOSUL and Associated States to prevent, detect and respond to the threat of illicit trafficking of nuclear and radioactive materials; converted all of its nuclear research reactors for the use of LEU fuel and repatriated all HEU fuel to the country of origin; established the Brazilian Nuclear Physical Security Support Centre in partnership with the IAEA in 2012

Canada: Introduced national legislation known as Bill S-9, the Nuclear Terrorism Act, in 2012 that allowed the ratification of both the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) and the International Convention for the Suppression of Acts of Nuclear Terrorism; strengthened its domestic security requirements by producing new Regulatory Documents and updating others such as requirements for Nuclear Response Forces; ranked second in the world for nuclear material security conditions among countries with weapons-usable material according to the 2014 Nuclear Threat Initiative's "Nuclear Materials Security Index"; funded projects worth \$23.6 million since 2012 through its Global Partnership Program, providing training, equipment and infrastructure to support overall capacity and nuclear security levels in countries across two regions; contributed more than \$2.2 million to enhance the physical security and local capacity to manage highly radioactive sources; undertaking a comprehensive national project designed to promote the development of a national Nuclear Forensics (NF) capability; committed to eliminating the use of HEU in the production of medical isotopes by 2016; repatriating its U.S.-origin HEU fuel with the objective to complete the process by 2018; co-leading with the Republic of Korea a joint commitment on Promoting Full and Universal Implementation of UN Security Council Resolution 1540; established regulations and procedures for the vetting and supervision of all nuclear industry staff

Chile: Undertaking bilateral actions to reinforce source security; offered a number of training courses with a particular emphasis on the participation of member agencies of the Chilean security infrastructure; deployed substantial efforts to strengthen its technical and institutional architecture in nuclear and radiological security; developing a Security Culture Awareness Plan, under the supervision of the Nuclear and Radiological Authority, involving security aspects in domestic operators; developed an active regional agenda on security matters against the background of MERCOSUR agreements; reduced its enriched uranium reactors to less than 20% and has no highly-enriched nuclear fuel (HEU)

China: Promoting legislation on atomic energy and drafting National Nuclear Security Regulations; increasing its input in nuclear security, pushing forward the construction of the National Base for Research and Development of Nuclear and Radiological Safety and Security Monitoring technologies, issued the Plan on Promoting Nuclear Safety and Radioactive Pollution Prevention and Control during the 12th Five-Year Period and Long-term Goals 2020; amended its Nuclear Emergency Plan to maintain effective emergency response capabilities; decommissioned two HEU research reactors, and is now actively advancing the conversion of another HEU reactor to using low enriched uranium; helping Ghana to convert its HEU research reactor under the framework of the IAEA; promulgated the Security Requirements of Radioactive Sources Storage Facilities, plugged security loopholes across the country, and reduced

the risk of radioactive security incidents; setting up the China Customs Training Center for Radiation Detection

Czech Republic: Converted all its nuclear reactors, including research reactors, to use LEU fuel; considering the possibility to use only LEU targets for the production of medical radioisotopes

Denmark: Ranked first on the overall score in the group of countries with less than one kilogram of weapons-usable nuclear materials or none at all in the Nuclear Threat Initiative (NTI) Nuclear Material Security Index published in 2014; introduced a new database system containing information about both historical and existing radioactive sources; introduced Man-portable Radiation Detection systems in 2012 that have been allocated to inspection units across the country

European Union: EUROPOL is leading the development and maintenance of the EU Bomb Data System (EBDS) which contains information on incidents, threats, reports and analysis in relation to CBRN incidents; launched a CBRN Resilience Programme in civil protection to support preparedness and enhance effective coordination in response to CBRN incidents and established the Emergency Response Coordination Centre (ERCC) in 2013; developing an advanced pilot training programme for EU customs officers on Radiation and Nuclear Detection; established the European Nuclear Security Training Centre (EUSECTRA) in 2013; implementing various projects under the Instrument for Stability (IfS) and Instrument for Nuclear Safety Cooperation (INSC) to improve the capabilities to detect and respond to radioactive and nuclear material out of regulatory control; implementing around 40 EU CBRN Centres of Excellence projects, most of them on covering safety and security, crisis management, legal framework and first response; enhanced its support to the IAEA; continued to develop its common regulatory framework, in the form of its EU Dual Use Regulation and to enhance its implementation; launched a comprehensive reassessment programme of all of its nuclear power reactors to ensure that they are not at risk from similar extreme events as those that affected the Fukushima Daiichi nuclear power plant

Finland: Designed a model of a nuclear security detection architecture; developed a new national DBT that entered into force in 2013; hosted an IAEA International Workshop on Nuclear Security Culture in 2013

France: Ratified the 2005 Amendment to the CPPNM and ICSANT in 2013; organised the First International Seminar on IPPAS in 2013 in cooperation with the IAEA; carried out repatriation operations of radioactive sources in Sudan in 2013; cooperating with other countries to develop high-density low-enriched uranium (LEU) fuel powder production technology as an alternative to HEU for research reactors

Gabon: Adopted new legislation concerning the radiological and nuclear safety and security regime; received assistance of the IAEA to support national authorities in the planning and implementation of a joint action plan on nuclear security

Georgia: Ratified the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) in 2012; established a National Register of radioactive sources and legal entities/licensees in cooperation with the U.S. NRC (Nuclear Regulatory Commission); carried out search-and-secure operations throughout the country to secure orphan sources; signed the Law on Export Control of Military and Dual Purpose Commodities; elaborated a national strategy to reduce chemical, biological, radiological and nuclear (CBRN) threats; established the Nuclear Non-proliferation Center at the Institute of Physics in cooperation with the Swedish Radiation Safety Authority and the U.S. DoE (Department of Energy)

Germany: Providing bilateral assistance to facility and reactor security efforts in Libya by improving the physical protection of the Nuclear Research Centre Tadjoura and

through staff training measures for the Libyan Nuclear Authority; continuing its efforts to develop high-density LEU fuel with high flux properties as part of its endeavours to minimize the use of HEU in research reactors where technically and economically feasible; continuing to explore ways and means of a timely return of all spent nuclear fuel of foreign origin from German research reactors based on HEU to be accepted to the country of origin; improving the national nuclear security regulatory framework; implemented a special CBRN incident reporting scheme for police and customs; established a register of "high Activity Sealed Source" that ensures their comprehensive traceability

Hungary: Established a Nuclear Security support Centre (NSSC) on the basis of the Hungarian Academy of Sciences Centre for Energy Research in 2012; hosted an event of the Global Initiative to Combat Nuclear Terrorism (GICNT) on national forensics libraries in 2014; completed the repatriation of HEU fuel to the Russian Federation in 2013; concluded a cooperation agreement with the IAEA to organise regional training activities

India: Conducted three regional training seminars on nuclear security in cooperation with the IAEA; inaugurated the Global Centre for Nuclear Energy Partnership in 2014

Indonesia: Started the process of drawing up a draft law on nuclear security with the view to submit it to the parliament in 2015; acceded to the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) in 2014; established a mobile expert support team (MEST) and developed a qualification program of related personnel in the detection and response to illicit trafficking of nuclear and radioactive materials; submitted the National Legislation Implementation Kit as house gift in the 2014 Nuclear Security Summit

Israel: Hosted a visit by a US interagency delegation to conduct a physical protection assessment of the Israel Research Reactor 1 (IRR-1) at the Soreq Nuclear Research Center (SNRC); reported to the ITDB regarding the detection by the Megaport system of contaminated scrap metal in the Port of Haifa in 2013; completed a project of returning highly enriched uranium (HEU) spent fuel from IRR-1 at the SNRC to the United States

Italy: Attended the First IAEA Ministerial Conference on Nuclear Security in 2013; working with the United States to eliminate excess highly enriched uranium and plutonium – two repatriation operations carried out in 2012 and 2013; improved the efficiency of the early warning radiation network which now includes more than 1200 stations throughout the national territory, two national centres and 16 regional centres; continued to carry out crisis management exercises, including those related to terrorist attacks with radiological materials; equipped the ports of Genoa and La Spezia with mobile detection systems, as part of a Memorandum of Understanding signed with the United States within the framework of the Megaports Initiative; devoting national efforts to decommissioning and management activities of radioactive waste and limited residual amounts of irradiated fuel and nuclear materials under a new regulatory authority, the National Inspectorate for Nuclear Safety and Radiation Protection (ISIN)

Japan: Decided to remove all highly-enriched uranium (HEU) and separated plutonium from the Fast Critical Assembly (FCA) and the Japan Atomic Energy Agency (JAEA); working toward implementation of the down-blend of HEU from the Yayoi reactor of the University of Tokyo, which was permanently shut down in 2011; hosted a table-top exercise for transport security in 2013 and jointly conducted a table-top exercise on transport security with the United States in 2012; hold an international symposium entitled "Nuclear Physics and Gamma-ray Sources for Nuclear Security and Nonproliferation"; developed with Sandia National Laboratories (SNL) a Security-by-Design Handbook for other countries as a joint research project; implemented thirty exercises and two field training exercises (FTX) at eighteen

nuclear power plants to counter terrorism against nuclear power plants in 2013; established the Nuclear Regulation Authority (NRA) as an independent administrative body from agencies promoting the use of nuclear energy in 2012; strengthening the security of radioactive sources by developing the system to issue export certificates and the registration system of radioactive sources

Jordan: Presented to the parliament the bill relating to Jordan's accession to International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) in 2014; took the decision to create a Counter-Nuclear Smuggling Team in 2013; hosted an international workshop entitled "Counter Nuclear Smuggling" in 2014

Kazakhstan: Confirmed its acceptance of the Code of Conduct on the Safety and Security of Radioactive Sources and created a national register of ionizing radiation sources; implementing a pilot project to introduce an accounting and control system for raw uranium; adopted national plan to respond to nuclear accidents; working on improving transportation security regulation; working on the establishment of a nuclear forensics database; conducting negotiations with the IAEA to establish the IAEA LEU Bank; implementing a joint project to strengthen nuclear security at the Ulba Metallurgical Plant and Nuclear Physics Institute

Lithuania: Introduced new regulations covering the physical security of nuclear facilities, nuclear material, nuclear fuel cycle material and sources of ionising radiation; strengthening preparedness, technical capabilities and competencies of the Radiation Protection Center and other relevant institutions; hosted a regional workshop on the implementation of UN Security Council Resolution 1540 in 2012; established the Nuclear Security Centre of Excellence in in Medininkai in 2012

Malaysia: revised its Integrated Nuclear security Support Plan (INSSP) for the period of 2013-2015 to include the recommendations provided by the IAEA; co-organised the Tiger Reef Cross-Disciplinary Training Workshop and Table-top Exercise on Nuclear Forensics in 2014; became registered user of the International Catalogue of Sealed Radioactive Sources and Devices (ICRSRS); developing a disposal facility to manage disused sealed radioactive sources

Mexico: Ratified the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) in 2012; received International Physical Protection Advisory Service (IPPAS) missions in all its nuclear facilities; converted the HEU fuel of the nuclear research reactor "Triga MARK III" to use LEU fuel; signed an agreement with Canada to monitor radiation sources from their origin to their final destinations; improving security of medical, industrial and research facilities; became member of the Nuclear Supplier Group, Wassenaar Arrangement and Australia Group

Morocco: Hosted and co-organized a sub-regional workshop for French-speaking African countries in 2013; finalising in cooperation with the EU and US DoE a new draft law to develop an export and import control system of dual-use products; strengthening the legal regulatory and institutional framework pertaining to nuclear security and safety; initiated a Human and Reliability Program to enhance the safety and security of activities in Maamoura Nuclear Research Center in 2013; strengthened the physical protection, with the US-DoE's support, of the nuclear material used in CNESTEN's 2MW research reactor and the security of the facilities using radioactive sources for various purposes; co-organised with the IAEA the International Exercise "ConvEx3" with the participation of 58 States and 10 International Organisations

The Netherlands: Introduced a DBT concerning cyber security for the Dutch nuclear sector in 2013; strengthened requirements on security of radioactive sources; converted all its nuclear reactors, including research reactors, to use LEU fuel; hosted the international table-top exercises @tomic 2012 and @tomic2014 on the prevention of

nuclear/radiological terrorism; started a Master's programme in nuclear security in 2012

New Zealand: Revisiting radiation safety legislation to strengthened requirements on securing radioactive sources; joined the Zangger Committee in 2013

Nigeria: Produced the Nuclear Safety, Security and Safeguards Bill that is awaiting passage by the National Assembly; developed a search and rescue programme for orphaned radioactive sources; established a Nuclear Security Center domiciled in the Nigerian Nuclear Regulatory Authority; cooperating with the IAEA, USA and China in efforts aimed at Core Conversion from HEU to LEU in the Nigeria Research Reactor; established a State System of Accounting for and Control of Nuclear Materials (SSAC)

Norway: Continued projects to consolidate and secure spent nuclear fuel and radioactive materials; supported IAEA's assistance programmes and cooperation with developing countries on HEU minimisation, and promoting HEU minimisation within the framework of IAEA; partnering with the government of Kazakhstan and the United States on securing borders in Central Asia to prevent and detect nuclear smuggling; took the decision to phase-out of the use of high-activity sources in blood-irradiators at hospitals

Pakistan: Established a National Institute of Safety and Security (NISAS) to facilitate national and regional training courses on nuclear security; invested heavily in nuclear safety at the plant, corporate and regulatory levels; implementing a Nuclear Security Action Plan (NSAP) in collaboration with the IAEA to manage radioactive sources, secure orphan sources, detect radiation and prepare for emergencies; established a Nuclear Emergency Management System at the national level to handle nuclear and radiological emergencies

Philippines: Joined the G8 Global Partnership against the Spread of Materials and Weapons of Mass Destruction in 2013; implemented several projects to ensure the security of nuclear and radiological material sources

Poland: Established a special team for developing proposals to strengthen the anti-terrorist security of the nuclear research reactor in Świerk; removing HEU spent nuclear fuel from the "EWA" and "MARIA" research reactors

Republic of Korea: Working with Belgium, France, Germany and the United States on a joint project to develop new high-density low-enriched uranium (LEU) fuel, as part of the efforts to convert highly enriched uranium (HEU) fuel used in high performance research reactors to LEU fuel; launched the International Nuclear Non-proliferation and Security Academy (INSA) in 2014; hosted the Seoul Conference on Cyberspace, where cyber security of critical information infrastructures (CII) was stressed as an important area for further work

Romania: Reviewing its national practices and regulatory framework in order to reflect the requirements of the latest IAEA documents on the Physical Protection of Nuclear Material (INFCIRC/225/Rev.5); conducted the last stage of repatriation to the Russian Federation of EK-10 low-enriched nuclear fuel; organised a national training course in Computer and Information Security for Nuclear Facilities in Romania in 2013; setting up a national Operational Centre for Radioactive Waste Management

Russian Federation: Introducing the national automated information system to control the cross-border movement of nuclear and other radioactive materials; establishing an automated system of safe transport of nuclear and other radioactive materials making possible to locate vehicles carrying nuclear materials and assess their physical protection in real time; developing a system of forensic laboratories to identify nuclear and other radioactive materials and radioactive waste removed from illicit trafficking; removed all HEU fuel from nine countries and

partly HEU fuel returned from five countries; conducted with the IAEA workshops on security culture for experts in the countries operating, building or planning to construct nuclear power reactors designed in Russia

Singapore: Co-hosted with the IAEA an international workshop on Notification, Reporting and Requesting Assistance in the Case of a Nuclear or Radiological Emergency in 2012; put in place a licensing regime for the import, export, possession, handling, transport, use and storage of radioactive material; set up a nuclear forensic laboratory

South Africa: Conducted the Integrated Nuclear Infrastructure Review (INIR) mission with the IAEA in 2013; hosted the Workshop on the Implementation of Security Council Resolution 1540 for African States in 2012; conducted several workshops with the objective of enhancing nuclear security at its nuclear installations; continuing with its programme to recover, consolidate, and return disused and orphan radioactive sources through Africa and some non-African countries

Spain: Developing a National Assessment of the Design Basis Threat (DBT); continued to develop its national nuclear detection architecture; constructing a centralised storage facility for spent fuel and high-level waste; continued to develop its national nuclear detection architecture

Sweden: Ratified the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) in 2013; transferred separated plutonium to the USA under the US Global Threat Reduction Initiative (GTRI); hosted the Second INTERPOL Radiological and Nuclear Trafficking and Terrorism Analysis Conference in 2012

Switzerland: Strengthened and updated its legal and regulatory framework for physical protection; developing a nuclear security culture programme based on the IAEA Nuclear Security Series No. 7; adopted a Strategy against Cyber Risks, including the protection of crucial infrastructure

Thailand: Established a Centre of Excellence for Nuclear Forensics in 2013; allocated 448 million Thai Baht to found a 3-year project for the construction of a Nuclear and Radiation Technical Support Center; offered a course on Regional Human Resource Development for Nuclear Safety, Security and Safeguards Management under Chulalongkorn University Master's Programme on nuclear non-proliferation; co-hosted the 2nd ASEAN Regional Forum (ARF) on Non-Proliferation Nuclear Forensics in 2013; hosted a Proliferation Security Initiative (PSI) bilateral table-top exercise with the United States in Bangkok in 2013

Turkey: Adopted a new regulation on the physical protection of nuclear facilities and nuclear materials taking into the account the provisions of the 2005 Amendment to CPPNM in 2012; ratified the International Convention for the Suppression of Acts of Nuclear Terrorism in 2012; established the Ankara Nuclear Research and Training Center (ANAEM); organised with the IAEA and INTERPOL an international conference to promote national and regional interagency co-operation to counter nuclear smuggling

United Arab Emirates: Signed an Integrated master Working Plan (IWP) with the IAEA which will enhance for the period 2013-2017 the efficiency and effectiveness of the partnership between the UAE and the IAEA, including in the nuclear security domain; endorsed the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary Guidance on the Import and Export in 2013

United Kingdom: Co-ordinated demarches of those states yet to ratify the CPPNM 2005 Amendment during its 2013 G8 Presidency; hosted, on behalf of the IAEA, workshops on the Fundamentals of Nuclear Security, and also assisted the IAEA in developing and delivering a workshop on responses to a nuclear security incident; continuing to defuel and decommission the UK's only remaining civil HEU reactor; working with academia to develop a Code of Conduct on

Information Security; intends to extend outreach and assistance work to at least sixteen countries that have yet to ratify or implement key international instruments in the nuclear security field

United Nations: Convened the United Nations High-Level Meeting on Countering Nuclear Terrorism with a Specific Focus on Strengthening the Legal Framework in 2012; the United Nations Office on Drugs and Crime continued to provide legal and technical assistance and tailored capacity-building on the ratification and full implementation of the international instruments against nuclear terrorism; the United Nations Office for Disarmament Affairs co-organised 12 regional or thematic workshops on the implementation of resolution 1540; worked to assist government in improving security in the containerized trade supply chain through the Container Control Programme

United States: Removed all Category I and II special nuclear material from Lawrence Livermore National Laboratory; recovered over 4,390 domestic radiological sources from licensees that have identified no further use for those sources and repatriated U.S.-origin sources where feasible; installed security upgrades at over 240 domestic facilities; updated access requirements to sensitive nuclear information that could be of interest to terrorists; led international efforts that led to the IAEA's update and publishing of INFCIRC/225/Rev5; downblended about 13 metric tons of U.S. highly enriched uranium (HEU), cooperated with Russia in the downblending of about two metric tonnes of Russian HEU; supported the removal and elimination of over 400 kilograms of HEU from ten countries; completed the HEU Purchase Agreement signed with Russia under which 500 metric tons of Russian weapons-origin-HEU was converted into LEU; intends to demonstrate commercial capability to produce the medical isotope molybdenum-99 in the United States using non-HEU technologies by 2016; helped partner countries to develop counter nuclear smuggling capacity through increased law enforcement and investigative capabilities to disrupt international nuclear smuggling networks; intends to equip 84 additional sites/ports worldwide with radiation detection systems, deploy over 60 mobile and man-portable radiation detection systems to 21 countries, and transition another 100 sites/ports to partner country responsibility

Vietnam: Ratified the Additional Protocol to the IAEA Safeguards Agreement in 2012; acceded the Convention on Physical Protection of Nuclear Material (CPPNM) and ratified its Amendment in 2012; participated in the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Source Management in 2013; planning to establish a Technical Support Centre for Nuclear Security and Safeguards; upgraded physical protection systems for 24 radiation facilities with category 1 sources; put into trial operation 12 RPMs in Cai Mep Seaport; repatriated all spent HEU fuels to the Russian Federation in 2013; signed a "Letter of Intent" with the Republic of Korea and the IAEA to implement a Pilot Project for Radioactive Source Location Tracking System (RADLOT) in Viet Nam, contributing to the security of radioactive sources used for NDT.

List of Joint Statements, The Hague Nuclear Security Summit

[24-25 March 2014]

Joint Statement by President Obama and President Nazarbayev of Kazakhstan on Cooperation in the Sphere of Nonproliferation and Strengthening Nuclear Security

The Republic of Kazakhstan and the United States of America have confirmed a shared commitment to nonproliferation and strengthening nuclear security.

The Republic of Kazakhstan and the United States of America note with satisfaction the successful efforts of the Cooperative Threat Reduction Program and will continue to

strengthen the physical security on the former Semipalatinsk Test Site.

The United States of America will continue to partner with the Republic of Kazakhstan to strengthen its joint efforts to prevent illicit trafficking in nuclear and radiological materials.

The United States of America welcomes the Republic of Kazakhstan's activities to strengthen nuclear security and implement decisions of the Washington and Seoul Nuclear Security Summits, including by converting the VVR-K research reactor at the Institute of Nuclear Physics (INP) to low enriched uranium (LEU) fuel, downblending the INP's highly enriched uranium (HEU) material and removing the HEU spent fuel from the reactor.

The United States and Kazakhstan will continue to work together to convert Kazakhstan's remaining HEU reactors to LEU fuel and eliminate all remaining HEU research reactor fuel as soon as technically feasible. The United States of America supports the efforts of the Republic of Kazakhstan to host the IAEA LEU Bank, establish a Regional Nuclear Security Training Center, and strengthen its emergency preparedness, response and mitigation capabilities.

The Republic of Kazakhstan and the United States of America attach importance to Nuclear Security Summit process.

Joint Statement by President Obama and Prime Minister Elio Di Rupo of Belgium on the 2014 Nuclear Security Summit

Belgium and the United States of America are pleased to announce that they have jointly completed the removal of a significant amount of excess highly enriched uranium (HEU) and separated plutonium from Belgium.

At the 2012 Nuclear Security Summit, Belgium and the United States pledged to work together to remove this material prior to the 2014 Nuclear Security Summit. This removal entailed extremely complex operations that required the joint team to develop a new glovebox facility for plutonium packaging, to train and certify personnel in specialized packaging operations, to validate certificates for a U.S.-designed nuclear material package in Belgium, and to address materials in unique and unusual forms. Despite the significant technical challenges, the team successfully completed the operation on schedule.

The material was safely packaged in transport containers certified by regulators in both the United States and Belgium. The United States, Belgium, the United Kingdom, and the International Atomic Energy Agency (IAEA) worked seamlessly together and in accordance with all relevant regulations and internationally-recognized recommendations to securely transport this material to its final destination.

Belgium and the United States plan to continue their cooperation to eliminate additional stocks of excess special nuclear material, consistent with their commitment to prevent nuclear terrorism. They also pledge to work with others in the international community to assist them with the elimination of such materials.

Joint Statement by the Leaders of Japan and the United States on Contributions to Global Minimization of Nuclear Material

Recalling the history of Japan-U.S. bilateral collaboration on advanced nuclear activities as well as the International Atomic Energy Agency's (IAEA) conclusion that all nuclear materials in Japan stay in peaceful activities;

Recalling Japan-U.S. cooperation including through the Global Threat Reduction Initiative (GTRI) which strengthened nuclear security worldwide by reducing sensitive nuclear material in Japan and other countries and securely transporting the material to the United States; and,

Recalling President Obama's remarks at Hradcany Square, Prague, Czech Republic on April 5, 2009;

Japan and the United States reaffirm our determination to strengthen nuclear security and to further cooperate, through activities such as our bilateral Nuclear Security Working Group and the GTRI, toward our mutual goal of preventing nuclear terrorism.

Today in The Hague, the Netherlands, on the occasion of the third Nuclear Security Summit, Prime Minister Abe and President Obama pledged to remove and dispose all highly-enriched uranium (HEU) and separated plutonium from the Fast Critical Assembly (FCA) at the Japan Atomic Energy Agency (JAEA) in Japan. This effort involves the elimination of hundreds of kilograms of nuclear material, furthering our mutual goal of minimizing stocks of HEU and separated plutonium worldwide, which will help prevent unauthorized actors, criminals, or terrorists from acquiring such materials. This material, once securely transported to the United States, will be sent to a secure facility and fully converted into less sensitive forms. The plutonium will be prepared for final disposition. The HEU will be downblended to low enriched uranium (LEU) and utilized for civilian purposes.

By committing to remove and dispose all HEU and separated plutonium from the FCA, Japan and the United States reaffirm our belief that the most cutting edge sciences do not necessarily require the use of the most proliferation sensitive materials. In this context, our two countries plan to work together to design new enhancements to the FCA, expanding the facility's scope to include important research on the transmutation and disposition of nuclear waste. Additionally, to ensure that Japan can safely and securely further its important work on nuclear research and medical isotope production, the United States will continue to accept research reactor spent fuel from several Japanese facilities that utilize LEU.

This pledge complements the significant role that both Japan and the United States are playing in finding new ways to continue improving global nuclear security. Many of the remaining gains that the international community can make in this area will require difficult decisions, and Japan has demonstrated its leadership by resolving to remove all special nuclear material from the FCA, consistent with all Summit Communiqués' spirit to minimize stocks of nuclear material. Our two countries encourage others to consider what they can do to further HEU and plutonium minimization.

Joint Statement by the United States and Italy on the 2014 Nuclear Security Summit

Italy and the United States of America are pleased to announce that they have jointly completed the removal of approximately 20 kilograms of excess highly enriched uranium (HEU) and separated plutonium from Italy.

At the 2012 Nuclear Security Summit, Italy and the United States pledged to work together to remove this material prior to the 2014 Nuclear Security Summit. This removal entailed extremely complex operations that required the development of new gloveboxes for plutonium packaging, the development of a new process to convert HEU from a solution to an oxide, the coordination of uranium shipments from three separate locations, the development of novel packaging configurations for the consolidation of plutonium materials within Italy, and the training and certification of personnel for specialized packaging operations.

The material was safely packaged in transport containers certified by regulators in both the United States and Italy. The United States, Italy, the United Kingdom, and the International Atomic Energy Agency (IAEA) worked seamlessly together and in accordance with all relevant regulations and internationally-recognized recommendations throughout the operation to ensure the safe and secure transport of this material. Despite the significant technical

challenges, the team was able to successfully complete the operation on schedule.

Italy and the United States plan to continue to work together to eliminate additional stocks of special nuclear material to make sure they do not fall into the hands of terrorists. They also pledge to work with others in the international community to assist them with the elimination of such materials.

Joint U.S.-EU Statement on Combating Illicit Trafficking

The European Union and the United States of America, in cooperation with the International Atomic Energy Agency (IAEA), each understand the importance of nuclear security and embrace the shared international responsibility to develop and promote systems and measures for the prevention of, detection of, and response to nuclear or other radioactive materials out of regulatory control. In recognition of this international responsibility, and in support of the Nuclear Security Summit Key Topic of Combating Illicit Trafficking, and in line with the conclusions of the successful "International Conference on Nuclear Security: Enhancing Global Efforts" organised by the IAEA in Vienna on 1–5 July 2013, we are taking the following initial steps:

- The IAEA Nuclear Security Series, specifically the Implementing Guide on Nuclear Security Systems and Measures for the Detection of Nuclear and Other Radioactive Material out of Regulatory Control, emphasizes the importance of detection instruments in the context of a national level Nuclear Security Detection Architecture. In support of this principle, the European Commission Directorate General for Home Affairs (EC-HOME), the Joint Research Centre (EC-JRC), the U.S. Department of Homeland Security Domestic Nuclear Detection Office (DNDO), the U.S. Department of Energy (DOE), and the International Atomic Energy Agency (IAEA) have collaborated through the Border Monitoring Working Group in the conduct of the Illicit Trafficking Radiation Assessment Program (ITRAP+10) test campaign.
- The ITRAP+10 effort demonstrates a crucial facet of nuclear detection as outlined in the IAEA Nuclear Security Series, namely the evaluation of nuclear and radiological detection technologies against a set of common performance goals. Over the past three years, this international partnership tested about 70 different models of detection and identification equipment against international guidance and standards. Now that testing has been completed, we pledge to share the findings of this test campaign to inform, as appropriate, future revisions to the IAEA Nuclear Security Series and other relevant international standards. Furthermore, we intend to make available scientific and technical data on commercially available detection systems with the international community with the aim of documenting detection instrument capabilities, exemplifying proper usage and deployment, and promoting new research and development efforts.

Joint Statement on Multinational Cooperation on High-Density Low-Enriched Uranium Fuel Development

Belgium, France, Germany, the Republic of Korea and the United States, the parties to this joint statement recognize that the ultimate goal of nuclear security is advanced by minimizing highly-enriched uranium (HEU) in civilian use, which is affirmed in the Washington and Seoul Summit Communiqués and is also a key issue on the agenda of the 2014 Nuclear Security Summit.

In continuation of the Joint Statement on Quadrilateral Cooperation on High-density Low-enriched Uranium Fuel

Production made in Seoul, the original four parties plus Germany are working together to develop and qualify new high-density low-enriched uranium LEU fuels as part of an effort to convert research reactors from HEU fuel to LEU fuel.

High performance research reactors use significant quantities of HEU each year and require unique and complex fuels to operate. The five parties are pooling their expertise and resources to develop, qualify and fabricate new high-density LEU fuels with the ultimate goal of converting the remaining high performance research reactors in the world to operate on these fuels when technically and economically feasible.

The parties are focusing their efforts on uranium molybdenum (UMo), both as a monolithic fuel foil and as UMo powder dispersed in an aluminium matrix. In the last years the parties have had particular yet not exclusive technical foci. Europe (Belgium, France and Germany) manufactured and tested in-pile full-scale fuel plates based on coated UMo powder technology; the United States manufactured and tested in-pile fullscale fuel plates based on coated monolithic UMo technology. As laid out in the 2012 Joint Statement, the Republic of Korea manufactured and made available to the community UMo powders based on advanced atomization technology, and intends to continue producing and providing such UMo powders for further qualification tests of new high-density dispersion fuel.

We express our shared confidence that this international cooperation among Belgium, France, Germany, the Republic of Korea and the United States to develop high density LEU fuels will be strengthened by intensified and coordinated collaboration that will contribute directly to the ultimate goal of minimizing HEU in civilian use. Cooperation and support from the international community are crucial for making available LEU fuel that is suitable for high performance research reactors, and we agree to share the benefits of all technology developed together in this joint effort, with conditions to be set out in due time.

Joint Statement of the 2014 Nuclear Industry Summit

The 2014 Nuclear Industry Summit convened in Amsterdam on 24th March 2014, in conjunction with the 2014 Nuclear Security Summit in The Hague. The Nuclear Industry Summit was attended by some 200 leaders from the worldwide nuclear industry with significant experience and responsibility for the operation of nuclear installations, production and management of nuclear materials, and for international nuclear cooperation and trade.

Nuclear technology and materials provide a vital contribution to modern society, as do the radioactive sources used in industry, medicine, agriculture, research and other fields. Nuclear power currently provides 12% of the world's electricity and has one of the smallest carbon footprints of any major energy source. Tens of millions of patients are treated with nuclear medicine each year and 90% of these support clinical diagnosis; there are over a 100 different nuclear imaging procedures in use at the thousands of medical centers that use nuclear medicine for the benefit of human health.

Continued public confidence is essential for the application of nuclear technology, and the extensive benefits that it brings. Participants commit to enhance public and stakeholder confidence through high standards of transparency, integrity, ethical behavior and social responsibility.

Previous Nuclear Security Summits in Washington DC and Seoul, and the associated Nuclear Industry Summits, recognized the continuing role of the nuclear industry to implement effective security arrangements, while underlining that States have the fundamental responsibility, consistent with their respective international obligations, to maintain effective national security regimes for all nuclear materials and nuclear facilities under their control.

The Participants acknowledge their individual responsibilities for implementing effective security arrangements within national regulatory frameworks and reaffirm their commitment to work together in a cooperative manner, and with respective States' authorities, to continuously improve safety, security and environmental protection performance.

The nuclear industry has continued to work actively to improve all aspects of their nuclear security arrangements, including physical protection, material accountability and security culture. It has also sought to minimize further the use of high enriched uranium (HEU) through the conversion from it to low enriched uranium (LEU) fuel in research reactors, where technically and economically feasible, and to expand the use of low enriched uranium targets for radioisotope production, whilst ensuring a continuous and stable supply of Mo-99 to the nuclear medicine community.

In preparation for this Nuclear Industry Summit, the Participants, through the activities of three Working Groups, reviewed the progress made by the industry over the last two years since the 2012 Nuclear Industry Summit in Seoul, and have made recommendations to further enhance nuclear security. The full Reports from each of the Working Groups are available, and the recommendations relate to improving Corporate Governance, enhancing Cyber and Information Security, further reducing the use of HEU and strengthening controls over high-activity radioactive sources.

Specifically, the recommendations include:

- Incorporating national and international guidance and good practices in the implementation of nuclear security measures, including security-by-design for both physical and cyber security provisions,
- Acknowledging that sharing good practices has long been a strength of the nuclear industry and has resulted in improved safety and operations, to extend this spirit of international cooperation, information exchange and review for nuclear security to the extent possible under national laws,
- Conducting routine evaluations of the sufficiency of security provisions and promoting a performance and risk-based approach to security implementation, including cyber-security,
- Enhancing corporate governance measures in the field of nuclear security and promoting strong security culture throughout organizations,
- Ensuring that all personnel with accountabilities for security are demonstrably competent by establishing appropriate standards for selection, training, and certification of staff,
- Clearly designating accountability for security, including physical protection, cyber security and information security as part of an integrated security program,
- Providing adequate provisions to warn and protect facility staff and the public in case of emergency with proper cooperation and coordination between facility and government agencies,
- Pursuing discussions in different forums, including collaboration between States and industry, on managing the dynamic and international cyber security threats and extending the discussions to operational standards to provide a common framework for the nuclear industry,
- Reinforcing industry collaboration by establishing regular discussions on cyber security topics with the objective of sharing good practices, and exchanging information on existing and probable upcoming threats,
- Endeavoring to further minimize the use of HEU through the conversion from HEU to LEU fuel in research reactors, where technically and economically feasible, and by switching from HEU to LEU targets in radioisotope production, while assuring a continuous and stable supply of Mo-99,
- Fostering the development of high-density fuel both by enhancing the existing scientific coordination and by addressing the industrialization issues, at the worldwide level,
- Engaging with states and relevant organizations to ensure that there is a diversification of supply sources of 19.75% enriched uranium and a viable disposition route for LEU research and test reactor fuels.

- Accepting return of disused sources which they supplied, and assisting holders of those sources in making logistical and financial arrangements for their return, and engaging with states regarding the provision of central facilities for the management of disused sources which cannot be returned to the supplier.

It was agreed to convene the next Nuclear Industry Summit in the USA in 2016 in conjunction with the next Nuclear Security Summit, at which time the Participants will report on the progress made to further enhance the security arrangements.

Joint Statement by the United States and Ukraine

On the occasion of the third Nuclear Security Summit in The Hague, the United States and Ukraine today reaffirm their strategic partnership and emphasize the important role of nuclear nonproliferation in that relationship. The United States values its 20-year partnership with Ukraine on these issues. Our nonproliferation partnership dates from Ukraine's 1994 decision to remove all nuclear weapons from its territory and to accede to the Treaty on the Non-Proliferation of Nuclear Weapons as a non-nuclear-weapon state. In the 1994 Budapest Memorandum, the United States, the Russian Federation, and the United Kingdom of Great Britain and Northern Ireland welcomed these Ukrainian actions, and they reaffirmed their commitment to Ukraine to respect the independence, sovereignty, and existing borders of Ukraine. The United States government reaffirms that commitment today to the new Ukrainian government and the people of Ukraine, including in Crimea. The United States government condemns Russia's failure to abide by its commitments under the Budapest Memorandum with its unilateral military actions in Ukraine. Russia's actions undermine the foundation of the global security architecture and endanger European peace and security. Ukraine and the United States emphasize that they will not recognize Russia's illegal attempt to annex Crimea. Crimea is an integral part of Ukraine. The United States will continue to help Ukraine affirm its sovereignty and territorial integrity. As the people of Ukraine work to restore unity, peace, and security to their country, the United States will stand by their side.

The United States and Ukraine reiterate their commitment to upholding their nuclear nonproliferation commitments. The United States recognizes the importance of the 2012 removal of all highly enriched uranium from Ukraine. This removal again highlighted Ukraine's leadership in nuclear security and nonproliferation, as we collectively work together to secure the world's vulnerable nuclear material. As part of its support for this effort, the United States committed in 2010 to work with Ukraine to construct a Neutron Source Facility at the Kharkiv Institute for Physics and Technology. This month construction of the Neutron Source Facility was completed. The facility, equipped with the most up-to-date technology to operate at the highest safety standards, provides Ukraine with new research capabilities and the ability to produce industrial and medical isotopes for the benefit of the Ukrainian people.

This state of the art facility is representative of the modern, European state the Government of Ukraine is committed to building. To build on this important cooperation, the United States will continue to provide technical support for the Neutron Source Facility as Ukraine completes the necessary final equipment installation, testing, and start-up to make the facility fully operational as soon as practical.

This successful effort reflects broad U.S.-Ukrainian cooperation on nuclear security and nonproliferation. Our countries recently extended the U.S.-Ukraine Cooperative Threat Reduction (CTR) Umbrella Agreement and the U.S.-Ukraine Agreement Concerning Operational Safety Enhancements, Risk Reduction Measures, and Nuclear Safety Regulation for Civilian Nuclear Facilities in Ukraine.

The United States and Ukraine intend to continue to partner to prevent nuclear proliferation by improving Ukraine's ability to detect nuclear materials on its borders, to provide physical protection at sites with nuclear or radioactive materials, and to maintain an adequate export control system in order to help realize the goals of the Nuclear Security Summits.

Joint Statement on Countries Free of Highly Enriched Uranium (HEU)

Today, twelve nations agreed upon a joint statement marking the elimination of highly enriched uranium from within their borders. We welcome this statement and the leadership role these nations are playing in a growing global trend away from highly enriched uranium in civilian uses.

Statement by Leaders of Chile, Czech Republic, Denmark, Georgia, Hungary, Mexico, Republic of Korea, Romania, Sweden, Turkey, Ukraine, and Vietnam

Gathered in The Hague on the occasion of the third Nuclear Security Summit, leaders of Chile, Czech Republic, Denmark, Georgia, Hungary, Mexico, Republic of Korea, Romania, Sweden, Turkey, Ukraine, and Vietnam, wish to highlight the elimination of highly enriched uranium (HEU) from within our borders. Noting the extensive security measures and significant financial costs associated with the possession of this material, and the technology that has been developed to fuel research reactors with low enriched uranium (LEU) fuel and to conduct the vast majority of experiments and to produce isotopes without the use of HEU, the removal of HEU from our territories has had clear and tangible benefits.

We express our appreciation to the Russian Federation, the United States of America and the International Atomic Energy Agency for their assistance in converting research reactors from HEU fuel to LEU fuel and in related HEU removal efforts. This material, once removed, shall be appropriately secured until ultimately disposed of or downblended to LEU and utilized for civilian purposes.

We, along with Kazakhstan and Singapore, applaud other countries that have similarly eliminated HEU and encourage all countries to support HEU minimization efforts to the greatest extent feasible, including those in a position to do so to eliminate all HEU from their territories in advance of the fourth Nuclear Security Summit to be held in 2016.

Joint Statement on the Contributions of the Global Initiative to Combat Nuclear Terrorism (GICNT) to Enhancing Nuclear Security

The text of the following statement was released by the Governments of the United States of America, Russia, Spain, Republic of Korea, the Netherlands, Australia, and the Kingdom of Morocco on the occasion of the contributions of the Global Initiative to Combat Nuclear Terrorism (GICNT) to enhancing nuclear security.

Begin Text:

The Global Initiative to Combat Nuclear Terrorism (GICNT) has made valuable contributions in strengthening global capacity to prevent, detect, and respond to nuclear terrorism. To date, the 85 partner nations have completed more than 60 activities under the auspices of the GICNT aimed at building partners' capabilities in this area. We, the Co-Chairs of the GICNT (Russia and the United States), the past and present Implementation and Assessment Group (IAG) Coordinators (Spain and Republic of Korea), and leaders of the three IAG Working Groups (the Kingdom of Morocco, the Netherlands and Australia) wish to inform the states in attendance at the 2014 Netherlands Nuclear Security Summit of the activities of the GICNT since the Nuclear Security Summit hosted by the Republic of Korea in Seoul in March 2012.

Over 250 representatives of GICNT partner nations and representatives from all four GICNT official observers (the International Atomic Energy Agency (IAEA), the European

Union (EU), the United Nations Office on Drugs and Crime (UNODC), and the International Criminal Police Organization (INTERPOL) participated in the eighth GICNT Plenary Meeting, hosted by Mexico in Mexico City on May 24, 2013. This robust participation demonstrates the vital importance that GICNT partner nations place on enhancing nuclear security and underscores their desire to work cooperatively to further this goal. At the Plenary meeting, GICNT partners recognized the valuable contribution of the IAG mechanism created at the June 2010 GICNT Plenary meeting in Abu Dhabi. The U.S. and Russian Co-Chairs further recognized the contributions of Spain in serving as the IAG Coordinator for three years, including organizing and chairing the Implementation and Assessment Group meetings in Arona and Ispra, Italy, in October 2012 and in Madrid, Spain, in February 2013. Through its leadership, Spain brought strong focus and coordination to GICNT activities. At the 2013 Plenary, the Republic of Korea was endorsed as the new IAG Coordinator.

The collaborative efforts fostered by the GICNT are especially significant in light of the 2010 Washington Nuclear Security Summit, the 2012 Seoul Nuclear Security Summit, and the 2014 The Hague Nuclear Security Summit. Already, GICNT collaboration has produced important results that complement the Nuclear Security Summit process and help advance critical elements addressed in the Summit:

The Nuclear Detection Working Group (NDWG), chaired by the Netherlands, is finalizing the Developing a Nuclear Detection Architecture series of documents following the publication of Volume I, Model Guidelines Document for Nuclear Detection Architectures, in 2009. Volume II in the series, Guidelines for Awareness, Training, and Exercises, and Volume III, Guidelines for Planning and Organization, focused on issues inherent to successful implementation and enhancement of nuclear detection architectures. Ukraine hosted a meeting of the NDWG in Lviv in November 2012 to further the development of the third document in the series. Volumes II and III in the foundational series were approved at the May 2013 GICNT Plenary meeting. At a workshop hosted by Greece in Athens in October 2013, the NDWG continued work on Volume IV, Guidelines for Detection Within a State's Interior, the final best practices guide in the series. Also during the Athens workshop, the NDWG began efforts to develop a tabletop exercise "playbook," a compendium of detection-related exercise scenarios available to all GICNT partner nations.

The United Kingdom hosted the GICNT's 2nd Symposium on Enhanced Detection of Special Nuclear Material in November 2012, to take stock of current advancements in detection technologies, drawing widely on the experiences of other GICNT partner nations.

In September 2012, Russia conducted an exercise on nuclear detection, "Guardian 2012." During the exercise, Russia used a realistic scenario and real time activity to demonstrate the different aspects of Russia's national system for detecting nuclear threats, thereby further raising awareness of best practices for the practical implementation of basic principles of nuclear detection architectures in the framework of the GICNT.

In February 2014, Mexico hosted a field training exercise under the auspices of the NDWG, during which the participants had the opportunity to observe implementation of a radiation detection alarm adjudication process and interagency communications protocol in response to realistic nuclear detection scenarios at the Port of Manzanillo. This exercise highlighted national best practices in detection systems and in coordination of a domestic interagency response to a nuclear terrorism event.

The Nuclear Forensics Working Group (NFWG), chaired by Australia, completed a document entitled, Nuclear Forensics Fundamentals for Policy Makers and Decision Makers, which was endorsed at the GICNT Plenary Meeting in May 2013. This document is intended to raise policy maker and decision

maker awareness of nuclear forensics as a tool to enhance nuclear material security and to prevent illicit uses of nuclear and other radioactive material. In May 2012, Australia hosted "Iron Koala," a nuclear forensics seminar and tabletop exercise, which examined the importance of information sharing partnerships, both nationally and internationally, to effectively respond to cases related to nuclear smuggling. This exercise identified an interest amongst GICNT partners in further study of the topic of information sharing in the nuclear forensics field. Thus the working group has commenced development of a document seeking to frame the issues related to sharing nuclear forensics information in the response to and investigation of a nuclear terrorism-related event, currently titled Sharing Nuclear Forensics Information: Benefits, Resources, and Challenges.

Also under the auspices of the NFWG, the United Kingdom hosted in January 2014 the "Nuclear Forensics Workshop and Exercise – Exploring the Nuclear Forensics Chain of Custody: Guidance on the Development of Legally Compliant Nuclear Forensics Capabilities and Systems." The workshop incorporated a tabletop exercise "Blue Beagle" that demonstrated the British system for control and use of forensics evidence from a crime scene through its development and presentation as evidence in a courtroom and to its disposal. The workshop and exercise presented best practices for investigating a crime scene contaminated with radioactive material and showcased the critical steps needed to successfully introduce the evidence into legal proceedings.

Additionally, awareness-building information modules based on the GICNT Global Initiative Information Portal (GIIP) are in development. Currently, the NFWG is testing a National Nuclear Forensics Library module that provides policy-makers an outline of the national nuclear forensics library concept and identifies key resources for partner nations interested in further information on this subject.

The Response and Mitigation Working Group (RMWG), chaired by the Kingdom of Morocco, is working collaboratively to develop the Response and Mitigation Framework Document, a collection of key considerations that a country with limited capabilities should consider when initializing its national nuclear/radiological emergency response system. This document includes substantial input from the Moroccan experience in setting up its response capabilities. The Framework Document is intended as a living document, meant to be routinely updated and improved through follow-on practical activities and further input from partner nations. In its capacity as RMWG Chair, Morocco continues to work on an action plan for future activities aimed at strengthening GICNT partner capabilities in responding to a nuclear terrorism event. Morocco continues to work on an action plan for future RMWG activities aimed at strengthening GICNT partner capabilities in responding to a nuclear terrorism incident.

Under the auspices of the RMWG, Canada hosted the RADEX exercise in May 2012 in Toronto, to provide an overview of Canada's emergency management and national security authorities and demonstrate its response to a terrorist attack. Spain and Morocco jointly hosted the REMEX-2013 exercise, in Madrid, Spain, in April 2013. This exercise helped to test the national capabilities of both countries and their cooperation on responding to and mitigating simultaneous terrorist attacks involving radioactive substances.

In October 2012, the RMWG and NFWG met jointly in Ispra, Italy, to address the intersections of the two working groups in responding to nuclear and radiological events. Based on the success of this joint activity, in February 2014, the NFWG and RMWG jointly held a workshop incorporating the tabletop exercise "Tiger Reef" focused on interagency coordination and training that highlighted best practices and key resources for integrating cross-disciplinary training into national response frameworks. "Tiger Reef" was hosted by Malaysia

in Kuala Lumpur and was supported by Australia, New Zealand and Malaysia.

Looking to the future, the GICNT Co-Chairs, the IAG Coordinator and the Working Group Leaders remain committed to working with GICNT partner nations to pursue focused efforts and activities that foster nuclear security collaboration and advance nuclear security goals. Moving forward, the GICNT leadership will seek to engage partner nations in practical exercises and workshops that enable them to prepare for and practice responding to nuclear security events. Such activities will focus on encouraging interagency, regional, and international cooperation and communication, in accordance with the proposals for GICNT work endorsed by the partners at the 2013 Plenary meeting in Mexico City. By enhancing partner nations' capacity to prevent, detect, and respond to nuclear terrorism, GICNT will continue to strengthen nuclear security capabilities globally through efforts that complement and support the objectives of the Nuclear Security Summit.

Joint Statement by Algeria, Argentina, Brazil, Chile, Egypt, Indonesia, Kazakhstan, Malaysia, Mexico, New Zealand, Philippines, Singapore, South Africa, Ukraine and Vietnam

In larger security: a comprehensive approach to nuclear security

We firmly believe that, to be consistent and ultimately effective, nuclear security must be articulated within the international community's broader efforts to promote the inter-related goals of nuclear disarmament, non-proliferation and the advancement of the peaceful uses of nuclear energy.

More than 40 years after the NPT's entry into force and 20 years after the end of the Cold War, the continued existence of many thousands of nuclear weapons still constitutes the greatest and most immediate risk for humanity.

In promoting nuclear security, States and other relevant stakeholders cannot set aside the fundamental question of the catastrophic humanitarian consequences of any possible use, either by intent or accident, of the most lethal device ever conceived.

It is our firm conviction that the total elimination of nuclear weapons is the only absolute guarantee against the use or threat of use of such weapons.

While we recognize that the security of nuclear weapons is the primary responsibility of States possessing them, these weapons are a legitimate concern of the entire international community.

We uphold the view that, as long as nuclear disarmament remains unrealized, measures aimed at comprehensively securing nuclear materials and facilities will be tinged with an undeniable degree of precariousness.

The additional risks stemming from the possibility of State or non-State actors having access to nuclear weapons or nuclear materials only heightens the need to expedite nuclear disarmament. For all their fundamental importance, measures against nuclear terrorism address only part of the problem, and are no substitute for the enhanced security that would be gained with the verifiable and irreversible abolition of nuclear weapons.

We also need to bear in mind the financial implications of maintaining (if not upgrading) nuclear arsenals, currently estimated at more than 17,000 warheads. The huge costs involved to secure them sit ill with a financially constrained international environment. In fact the estimated 100 billion US dollars spent yearly to maintain nuclear arsenals could be better used for other purposes, including the achievement of the long-awaited Millennium Development Goals (MDGs), to meet the needs of the world's poorest.

We are convinced that nuclear security efforts must be geared towards protecting all nuclear material and installations, in a comprehensive manner. To concentrate only on those for civilian application would be tantamount to neglecting the bulkiest part of such material.

As a matter of fact, according to United Nations Institute for Disarmament Research (UNIDIR) and the International Panel on Fissile Materials (IPFM), 98% of the HEU and 86% of the separated plutonium stockpiles worldwide are possessed by the nuclear weapon states. Measures aimed at securing nuclear material and installations for military application should be therefore at least on a par with those related to material or installations for civilian purposes.

We underscore the need for enhanced transparency regarding nuclear weapons arsenals. Without detriment to the protection of sensitive national security information, nuclear weapon states should regularly give an account of measures related to the security of their nuclear arsenals and materials for military purposes.

Taking the cue from the transparency measures agreed upon by the 2010 NPT Review Conference, we deem the establishment of a mechanism for information-sharing in this field an important confidence-building measure.

While supporting measures aimed at enhancing the protection of nuclear materials, both for civilian and military purposes, it is our strong conviction that only the complete, verifiable and irreversible elimination of all nuclear weapons could offer the international community a long-standing and sustainable solution for the provision of larger security in the nuclear field.

Statement on Enhancing Radiological Security

This gift basket records the intent of Algeria, Armenia, Australia, Canada, Czech Republic, Denmark, Georgia, Germany, Hungary, Italy, Japan, Kazakhstan, Lithuania, Morocco, Netherlands, New Zealand, Norway, Republic of Korea, Sweden, Turkey, United Arab Emirates, United Kingdom, and the United States, who choose to join to secure IAEA Category 1 radioactive sources within their territory by 2016, consistent with the actions outlined below:

- We the parties to this additional statement declare our commitment to secure IAEA Category 1 sources consistent with the IAEA's Code of Conduct on the Safety and Security of Radioactive Sources and with consideration of Nuclear Security Series 14: Nuclear security recommendations on radioactive material and associated facilities and Nuclear Security Series 15: Nuclear security recommendations on nuclear and other radioactive material out of regulatory control, giving particular attention to the following activities:
 - Support a regulatory body whose regulatory functions are effectively independent of other functions, with the authority to oversee and enforce security at sites (legislation, regulations, inspections, human resource qualifications, etc.);
 - Establish a comprehensive lifecycle management plan (import/export controls, secure storage, orphan source recovery, disused source management, national registry, etc.);
 - Develop a comprehensive plan for sources out of regulatory control (Search & Secure), notification of neighbouring countries and IAEA Incident and Trafficking Database;
 - Assess the domestic threat and develop a national response plan (exercised periodically);
 - Implement site level security measures (physical protection measures, procedures, training, performance testing, maintenance, awareness, trustworthiness of individuals involved in the management of radioactive sources, etc.); and

- Provide rapid response to any attempted or actual unauthorized access to radioactive material (exercised periodically)
- Cooperation with other States and multilateral organizations is encouraged to complete the above-listed radiological security measures.
- We also may consider instituting additional best practices for IAEA Category 1 radioactive source security. These measures could include:
 - Robust physical protection access controls preferably with multifactor authentication to restrict access to radiological sources;
 - Monitoring systems designed with defense in depth; for example, redundant and timely alarms and video assessment from multiple sites sent to a centralized monitoring facility staffed by trustworthy personnel;
 - Enhanced delay measures to allow response forces to arrive in time to address the security threat;
 - The active involvement of off-site response forces in both maintaining awareness of radiological sources and threats within the city/state/country, as well as engaging sites with radiological sources in planning and training activities (e.g., facility walk-downs, target folder development, tabletop and other exercises); and
 - A robust and holistic regulatory framework that governs secure source transportation, possession, and disposition.

Enhancing the Security of the Maritime Supply Chain

This gift basket records the intent of Australia, Belgium, Canada, Georgia, Germany, Israel, Lithuania, Kazakhstan, Netherlands, Spain, United Arab Emirates, United Kingdom, and the United States, to seek enhanced measures to permanently remove nuclear and radiological materials that are out of regulatory control from the global supply chain, while effectively deterring, detecting, and appropriately responding to trafficking of nuclear and radiological material and weapons through the maritime shipping system.

The Nuclear Security Summit recognizes the importance of a national level approach or framework for the prevention, detection and response of nuclear and radiological materials that are out of regulatory control. An important element of such an approach is ensuring that illicit trafficking of nuclear and radiological material and weapons does not occur through the global supply chain, including its maritime shipping component. In support of this objective, we the parties to this statement declare our commitment to undertake the following actions:

- States with radiation detection capabilities at their large container seaports will continue to maintain robust capabilities and be prepared to assist States that wish to initiate similar radiation detection programs. This assistance could take the form of sharing best practices and lessons learned, including alarm resolution and disposition, and in some cases, the provision of financing, training, and technical guidance.
- By the next Nuclear Security Summit in 2016, interested States will participate in a workshop, cohosted by the United States, aimed at enhancing measures to detect and permanently remove nuclear and radiological materials that are out of regulatory control from the global supply chain. Topics for the workshop could include current and potential future developments in:
 - a) States' national laws, regulations, and procedures;
 - b) National response plans;
 - c) Disposition approaches;
 - d) Targeting and screening;

- e) Best practices in areas such as detection, forensics, law enforcement; and
- f) New technologies

Joint Statement Forensics in Nuclear Security

At the Nuclear Security Summit in Washington in 2010 and in Seoul in 2012 States stressed the importance of forensic investigation in the event of a nuclear security incident. The use of nuclear forensics as an effective tool in determining the origin of detected nuclear and other radioactive materials and in providing evidence for the prosecution of acts of illicit trafficking and malicious uses was widely recognised. States were encouraged to work with one another, as well as with the IAEA, to develop and enhance nuclear forensics capabilities.

Since the early nineties efforts have been made to develop nuclear forensics as an instrument to categorise and characterise nuclear materials and relate them to a possible source. However, its link with traditional forensic methods e.g. DNA-profiling, latent fingerprints, retrieving digital data on nuclear materials or evidence contaminated with radioactive materials, was still weak. Also, there was no mutual awareness between experts from the nuclear and the forensic science domain and the definitions used in these specific science areas were not mutually used or could be interpreted differently. With this in mind, cooperation between the two science areas was deemed necessary, in order to share knowledge and build a collaborative capacity for investigating nuclear security incidents for law enforcement purposes.

At an NSS preparatory meeting in Vienna in March 2011, the Netherlands Forensic Institute (NFI), together with the Netherlands Ministry of Foreign Affairs, presented a white paper on "Nuclear Forensics", which aimed to strengthen the links between traditional and nuclear forensics through the development of a common set of definitions and standards, undertake research and share information and best practices. The white paper proposed a set of deliverables for the NSS, which would take developments in nuclear forensics a step further. Since the presentation of the white paper, a large number of States have contributed to these developments.

The States that have subscribed to this Joint Statement*, support or have contributed to:

- a knowledge platform to enhance the discussion and commitment amongst experts and policymakers;
- a survey of good practices to investigate nuclear security incidents;
- a nuclear forensics lexicon;
- an education and training curriculum for experts, responders and policy makers that deal with nuclear security incidents.

The knowledge platform and the survey will be used in the cooperation between our experts, the lexicon and the curriculum will be publicly available.

The States that have subscribed to this Joint Statement are convinced of the usefulness of the instruments that have been developed, and intend to continue the work in the field of nuclear forensics, as the investigation of nuclear security incidents requires innovations and the development of new examination methods. Final version

* *The following countries are signatories to this Joint Statement: Algeria, Australia, Canada, Chile, Czech Republic, Finland, France, Georgia, Hungary, Indonesia, Italy, Japan, Kazakhstan, Malaysia, Morocco, the Netherlands, Republic of Korea, Romania, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States of America.*

* *The following organisation also supports this Joint Statement: Interpol*

Joint Statement on the National Legislation Implementation Kit on Nuclear Security

On the occasion of their participation in the 2014 The Hague Nuclear Security Summit, the Governments of [Australia, Brazil, Canada, Chile, Czech Republic, Finland, Georgia, Hungary, Indonesia, Japan, Kazakhstan, Malaysia, Morocco, The Netherlands, New Zealand, Norway, The Philippines, Poland, Republic of Korea, Romania, Singapore, Spain, Sweden, Switzerland, Turkey, United Arab Emirates, United Kingdom, United States, and Vietnam, as well as the United Nations] welcome the work of Indonesia to develop the National Legislation Implementation Kit on Nuclear Security, a model legislation initiated by Indonesia, which has been presented as a house gift to this Summit.

The National Legislation Implementation Kit on Nuclear Security has been developed in furtherance of the important shared objective of strengthening national legislations in nuclear security.

As stated in the Hague Communiqué, the Kit could provide States with building blocks to develop comprehensive national legislation, as appropriate, in accordance with their own legal cultures and internal legal processes. The Kit provides States with references to a wide array of consolidated elements and provisions contained in relevant international legal instruments and guidance documents on nuclear security that together contribute to the global framework for nuclear security.

Joint statement on Nuclear Security Training and Support Centres / Centres of Excellence for the 2014 Nuclear Security Summit Submitted by Italy

On the occasion of the 2014 The Hague Nuclear Security Summit, the following States, Algeria, Argentina, Armenia, Australia, Belgium, Canada, Chile, France, Georgia, Germany, Hungary, Indonesia, Israel, Italy, Japan, Kazakhstan, Republic of Korea, Lithuania, Mexico, Morocco, the Netherlands, Pakistan, Philippines, Romania, Spain, Sweden, Turkey, United Arab Emirates, the United Kingdom, the United States and Vietnam recall the Joint Statement on Nuclear Security Training and Support Centres (NSSCs) issued at the 2012 Summit held in Seoul, Republic of Korea, and note that the International NSSC Network now has over 100 members from 39 States and that 12 States have established such centres since the 2010 Nuclear Security Summit.

States noted above reaffirm the value of the NSSC Network in strengthening international and regional cooperation and collaboration to promote nuclear security education and training. They also encourage the IAEA and other stakeholders to work with and to support the further development of nuclear security training and support centres / centres of excellence and to explore the synergies between education and training that such centres can provide for national, regional and global nuclear security.

They welcome the IAEA's activities carried out in conjunction with the NSSC Network to promote the establishment of centres and, in particular, activities to provide for the exchange of information and best practice that would strengthen capacity building and nuclear security culture, and maintain a well-trained cadre of technical experts in States.

Acknowledging the importance of the NSSC Network to promote coordination amongst such centres and recognising the importance of avoiding duplication and overlap, they also encourage regional cooperation initiatives and other initiatives to facilitate greater information sharing on and harmonization of respective capabilities and plans among individual centres in particular regions.

Joint Statement on Nuclear Security Training and Support Centres resulting from the 2012 Seoul NSS

On the occasion of their participation in the 2012 Seoul Nuclear Security Summit, Algeria, Australia, Canada, Chile, Czech Republic, Germany, Hungary, Indonesia, Italy, Japan, Jordan, Kazakhstan, Republic of Korea, Lithuania, Malaysia, Mexico, Morocco, Netherlands, Pakistan, Philippines, Ukraine, United Arab Emirates, the United Kingdom, and the United States note their intent to collaborate in the form of the International Network for Nuclear Security Training and Support Centres (NSSCs) aiming to build up a cadre of highly qualified and well trained nuclear security personnel, provide specific technical support required for effective use and maintenance of instruments and other nuclear security technical systems, as well as provide scientific support for the detection of and the response to nuclear security events in a country.

In accordance with its Nuclear Security Plan for 2010-13 approved by the Board of Governors in September 2009, the International Atomic Energy Agency's Office of Nuclear Security supports these member states through coordination of the activities of the Network. The IAEA's Nuclear Security Web Portal (NUSEC) provides a platform to facilitate coordination and sharing of best practices.

These NSSCs enhance nuclear security at the national level and promote many of the elements of the Communiqué and Work Plan of the 2010 Washington Nuclear Security Summit and the Communiqué of the 2012 Seoul Nuclear Security Summit. In particular, they support human resource development and education and training in nuclear security, enhance nuclear security culture, and maintain a well-trained cadre of technical experts.

Joint Statement on Promoting Full and Universal Implementation of United Nations Security Council Resolution 1540 (2004)

Noting the 10th anniversary in 2014 of United Nations Security Council Resolution (UNSCR) 1540 (2004), and recalling the 2010 Washington Nuclear Security Summit Communiqué and Work Plan, the 2012 Seoul Nuclear Security Summit Communiqué, and the follow-up resolutions of UNSCR 1540, particularly UNSCR 1977 (2011), which underscored the important role of UNSCR 1540 in strengthening -global nuclear security.

We, the Governments of Argentina, Armenia, Australia, Canada, Chile, Czech Republic, France, Georgia, Germany, Hungary, Italy, Japan, Jordan, Kazakhstan, Lithuania, Mexico, Morocco, the Netherlands, New Zealand, Norway, the Philippines, Poland, the Republic of Korea, Romania, Singapore, Spain, Sweden, Turkey, Ukraine, the United Arab Emirates, the United Kingdom, and the United States, with the support of the United Nations, reaffirm our commitment to full and universal implementation of UNSCR 1540, including the implementation of obligations to enhance the security of nuclear materials worldwide in line with the objectives of the 2014 Nuclear Security Summit. We reiterate our support for the activities of the United Nations Security Council Committee established pursuant to UNSCR 1540 (hereinafter "1540 Committee") and the Group of Experts. We also reaffirm our commitment to fully implement UNSCR 1540 in our respective states, in areas where we have not already done so, and further undertake to:

- Consider providing additional and ongoing assistance to requesting states in implementing their 1540 obligations, wherever possible and in close coordination with the 1540 Committee, with a view to achieving full global implementation of the nuclear security elements of UNSCR 1540 by the next comprehensive review of UNSCR 1540 in 2016;
- Examine options for funding UNSCR 1540 regional and sub-regional coordinator positions within international and regional organizations, as appropriate, in order to facilitate regional approaches to assisting states in implementing their nuclear security relevant UNSCR 1540 obligations, in line

with the focus on regional implementation outlined in UNSCR 1977;

- Consider hosting and contributing to regional and sub-regional capacity building events, as required, as a means to support UNSCR 1540 implementation, as well as to encourage and where possible support the participation in these events of states requiring assistance with UNSCR 1540 implementation;
- Consider opportunities to provide support and resources for the work of the 1540 Committee and its programmes, including, to the extent possible, voluntary financial contributions;
- Consider preparing and submitting to the 1540 Committee, national implementation action plans, as encouraged by paragraph 8 of resolution 1977 (2011), in order to map out our national priorities for UNSCR 1540 implementation, including those which support the objectives of the 2014 Nuclear Security Summit, and share these action plans with other States through the 1540 Committee website, and assist other States in developing and implementing such plans upon request;
- Strengthen efforts to encourage States that have not yet submitted their first report on the implementation of UNSCR 1540 to do so as soon as possible, including through bilateral dialogues, outreach efforts in regional and multilateral organizations, and where possible by providing assistance to States that request it, with a view to achieving universal reporting;
- Report on the progress of our efforts at regular intervals in relevant fora, such as the United Nations, the 1540 Committee and the International Atomic Energy Agency, as well as the Global Partnership Against the Spread of Weapons and Material of Mass Destruction, the Global Initiative to Combat Nuclear Terrorism, and in other international and regional meetings and events; and
- Take these commitments into account when providing information for the comprehensive reviews of the 1540 Committee in 2016 and 2021.

Joint Statement on Transport Security

On the occasion of the Second Nuclear Security Summit held in Seoul, the Republic of Korea, on March 26-27, 2012, the leaders of the participating states of the Transport Security Gift Basket, namely France, the Republic of Korea, the United Kingdom, the United States, and Japan issued an additional joint statement to express their further commitment to strengthen security in the transport of nuclear and other radioactive materials to meet the intent of the Seoul Communiqué.

In this regard, the five participating states of this Basket conducted a table-top exercise (TTX) on November 12-14, 2013, in Tokyo, Japan, to share good practices, strengthen collaboration and promote the continuous improvement of transport operations. Participants included officials and experts from the five states as well as the International Atomic Energy Agency, and some observers from other states of the NSS, with facilitation by the World Institute for Nuclear Security, the World Nuclear Transport Institute, and the Japan Nuclear Energy Safety Organization. We, the five participating states of this Basket, on the occasion of the Third Nuclear Security Summit in The Hague, share the attached TTX report with the other States.

Furthermore, we held two working group meetings to address the transport security issues amongst the representatives of the governments. As a result of the meetings, we decided to continue the working group activities until the next Nuclear Security Summit in 2016 and express our further commitment to work together for improving security in the transport of

nuclear and other radioactive materials, including the following areas.

1. For appropriate national use of the recommendations of INFCIRC/225/Rev.5 and the “IAEA Implementing Guide on the Security of Nuclear Material in Transport” (to be published)

(1) Current Status

- Much knowledge and experiences has been gained from past transports conducted throughout the world over the last decades. Historically, the security record of civilian transport of nuclear materials has been excellent and we must strive to maintain that record.
- Many countries have worked and continue working on the implementation of security measures regarding civil transport of nuclear materials, in compliance with the relevant international conventions and taking into account international recommendations as developed in INFCIRC/225/Rev.5.
- The IAEA Implementing Guide on the Security of Nuclear Material in Transport, which is soon to be published by the IAEA, will be duly considered by states while implementing nuclear transportation-related measures.

(2) Future Activities

- The participating states of this Basket will consider sharing information on their efforts to implement their international obligations arising from the relevant international conventions and make proper use of the recommendations of INFCIRC/225/Rev.5 and the “IAEA Implementing Guide on the Security of Nuclear Material in Transport” in their national practices, and cooperate with each other for more effective implementation, while protecting sensitive information.
- The participating states of this Basket may consider conducting joint table-top exercises for all transport modes (road, sea, rail and air) wherever and whenever feasible.
- The participating states of this Basket will propose to share the results of above-mentioned activities with the IAEA and other states while protecting sensitive information and actively contribute to the IAEA’s drafting efforts of the Nuclear Security Series.
- Additional participating states are welcome, especially those who have experiences in rail and air transport.

2. For building close relationship among relevant government ministries and agencies as well as Centres of Excellence (CoE)/Nuclear Security Support Centres (NSSC) to strengthen transport security and develop nuclear security culture

(1) Current Status

- In the area of transport security, collaboration among the relevant ministries and agencies as well as CoEs/NSSCs could be further enhanced with the exchange of more information such as good practices and lessons learned, while bearing in mind that sensitive information should be protected.

(2) Future Activities

- The participating states of this Basket propose to closely communicate with CoEs/NSSCs and cooperate with relevant stakeholders to capture good practices and lessons learned related to transport security and share them among the participating states.
- The participating states of this Basket will consider including transport security into the training curricula of the CoEs/NSSCs, and dispatching experts as instructors, where feasible, for education and training.
- When possible, the participating states of this Basket will share the knowledge obtained by the above-mentioned activities as much as possible with other states through activities such as training programmes, as a contribution to the efforts already conducted by the IAEA.

3. For research and development of nuclear security-related equipment and systems by related industries, relevant government ministries, agencies and CoEs/NSSCs

(1) Current Status

- Innovation of technology and development of new transportation methods, together with regulation and management, are utilized as measures to enhance nuclear security.

(2) Future Activities

- The participating states of this Basket continue to strongly promote R&D to improve effective transport security.
- The participating states of this Basket will consider, where appropriate, cooperation in the development of technologies to improve transport security.
- The participating states of this Basket will encourage operators to introduce newly developed technologies to enhance the security of transportation.

4. To assist other nations in the implementation of the Convention on the Physical Protection of Nuclear Material (CPPNM) and its 2005 Amendment as well as in the use, where appropriate, of the recommendations of INFCIRC/225/Rev5 and other IAEA guidances to acquire the capabilities to enhance the security of nuclear and other radioactive materials while in all modes of domestic and international transport

(1) Current Status

- Though the priority of the countries involved in international transport is domestic implementation of their international obligations and national regulations, many initiatives have been developed to help other states who request assistance to obtain expertise and technical support, for example, the UN Security Council Committee established pursuant to resolution 1540, the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, the Global Initiative to Combat Nuclear Terrorism. IAEA peer reviews also provide technical advice to beneficiary states on their national physical protection regime.

(2) Future Activities

- With due consideration to the necessary protection of sensitive information, the participating states of this Basket will consider mutually exchanging information on physical protection and the security of nuclear and other radioactive materials while in all modes of domestic and international transport, in order to capture good practices and lessons learned.
- The participating states of this Basket will consider sharing good practices and lessons learned with other states as much as possible in order to support them to implement international obligations and to use international recommendations such as INFCIRC/225/Rev.5.

Statement of Activity and Cooperation to Counter Nuclear Smuggling

At the Washington Nuclear Security Summit we agreed on a Communiqué and Work Plan that included actions aimed at thwarting the illicit trafficking of nuclear or other radioactive materials. We recognize that identifying nuclear smugglers, detecting and recovering nuclear and other radioactive material out of regulatory control, and prosecuting those responsible are important and effective activities to help prevent terrorists from acquiring nuclear or other radioactive materials. Making good on these pledges, on a voluntary basis we have taken the following actions individually and together.

Jordan, Canada, The Czech Republic, Finland, France, Georgia, Hungary, Israel, Italy, Japan, The Republic of Korea, Lithuania, Malaysia, The Netherlands, Philippines, Sweden, Turkey, The United Arab Emirates, The United Kingdom and The United States of America, since or before the Washington Summit have taken steps to build national capabilities to counter nuclear smuggling. Although not universal to all countries in this list, the types of capabilities include increased law enforcement and intelligence efforts to investigate nuclear smuggling networks, increased awareness training and use of radiation detection systems and measures to detect materials outside of regulatory control at and inside borders, increased capability of nuclear forensics to trace material origin and illicit movement, and increased legal training for prosecutors to assure conviction as appropriate.

Jordan, Canada, Hungary, Israel, Italy, Lithuania, The Netherlands, Sweden, Turkey, The United Kingdom and The United States of America, have, together with INTERPOL and the IAEA, conducted detailed discussions since the Seoul Summit at a workshop focusing on: the optimal configuration of a national counter-nuclear smuggling capability; the nature of the threats confronting states; the coordination required between, and with, neighbors of states and others; the need for improved information sharing between states and organizations, and what can be done to overcome challenges associated with this; the roles of IAEA and INTERPOL; and how the NSS countries have assisted and will continue to assist, where possible, those who require it. We pledge to continue these discussions and invite other interested countries to participate.

Jordan, The Czech Republic, Finland, France, Georgia, Hungary, Israel, Italy, The Republic of Korea, Lithuania, Malaysia, Philippines, Sweden, Turkey, The United Arab Emirates, The United Kingdom, and The United States of America have introduced or passed new laws, regulations, guidance, or policies to combat illicit trafficking.

And Jordan, Canada, The Czech Republic, Finland, Hungary, Israel, Italy, The Republic of Korea, Malaysia, The Netherlands, Philippines, Sweden, The United Arab Emirates, The United Kingdom and The United States of America have committed themselves to review existing laws, regulations, guidance, or policies and make any adjustments necessary for the effectiveness of their counter nuclear smuggling efforts by the 2016 Nuclear Security Summit.

Canada, The Czech Republic, Finland, France, Georgia, Hungary, Israel, Italy, Japan, The Republic of Korea, Lithuania, Malaysia, Philippines, Sweden, Turkey, The United Arab Emirates, The United Kingdom and The United States of America recognize that nuclear smuggling networks can have international connections, and the consequent importance of bilateral, multilateral, and international cooperation as outlined in the Washington Work Plan. We have therefore shared information on nuclear smuggling cases with partner countries.

Jordan, Canada, The Czech Republic, Finland, France, Georgia, Hungary, Israel, Italy, Japan, The Republic of Korea, Lithuania, Malaysia, Philippines, Sweden, The United Arab Emirates, The United Kingdom and The United States of America note the value of sharing lead information through INTERPOL as an effective mechanism for identifying nuclear smuggling networks in a timely manner and to enhance cooperation.

The United Kingdom and The United States of America have donated resources to INTERPOL's Radiological and Nuclear Terrorism Prevention Unit to help build counter nuclear smuggling capabilities in other countries. Additionally, The United States of America has worked on a bilateral basis with a large number of international partners – including many Nuclear Security Summit countries to strengthen efforts to build counter nuclear smuggling capabilities and facilitate the removal of nuclear and radioactive materials outside of regulatory control.

Canada, Finland, France, Georgia, Hungary, Israel, Japan, The Republic of Korea, Lithuania, Malaysia, Sweden, The United Arab Emirates, The United Kingdom and The United States of America pledge to make resources and lessons drawn from experience available for counter nuclear smuggling capability building projects by the 2016 Nuclear Security Summit.

Statement on Nuclear Information Security: Progress update

35 States³⁶ have supported the Multinational Statement on Nuclear Information Security. The initiative recognised the fundamental need to protect the sensitive nuclear information, technology and expertise necessary to acquire or use nuclear materials for malicious purposes, or to disrupt information technology based control systems at nuclear facilities.

Ahead of the 2014 Nuclear Security Summit, the supporting States have reaffirmed the importance of comprehensive action to ensure the effective protection of sensitive nuclear information, and their commitments to:

- a) Developing and strengthening national measures, arrangements and capacity for the effective management and security of such information;
- b) Enhancing their related national security culture;
- c) Engaging with national scientific, industrial and academic communities to further raise awareness, develop and disseminate best practice, and increase professional standards;
- d) Supporting, drawing on and collaborating with the IAEA, other key international organizations and partner countries to facilitate mutual achievement of these aims.

In this context, the supporting States note:

- the IAEA's recognition that information security measures are a fundamental element of a State's nuclear security regime (Nuclear Security Series 20) and its forthcoming publication *Protection and Confidentiality of Sensitive Information in Nuclear Security*.

- the European Union Council's Conclusions on The challenges presented by the proliferation of weapons of mass destruction and their delivery systems recognising the need to protect sensitive knowledge and know-how.

- the Global Partnership Against the Spread of Materials and Weapons of Mass Destruction's inclusion in its 2013 work programme discussion of good practices in securing sensitive information.

The supporting States also note:

- the role of the nuclear Industry in ensuring effective and comprehensive protection of sensitive information, and the holding of the 2014 Nuclear Industry Summit.

- the World Institute for Nuclear Security's publication *Best Practice Guide on Information Security for Nuclear Operators*.

Responsibility for nuclear security within a State rests entirely with that State, and action to strengthen national nuclear security regimes further needs to take place in a manner appropriate to the national context.

The supporting States encourage further and ongoing action by all States to ensure the effective protection of sensitive information, technologies and associated facilities.

As sponsor of the 2012 Multinational Statement, the UK is pleased to provide an update on some of the voluntary measures taken by supporting States in line with their commitments (Annex A).

Annex A

Australia: The Australian Government Protective Security Policy Framework sets out comprehensive security measures to protect sensitive information from unauthorised use, accidental modification, loss or release. Australia has focused on strengthening national arrangements for information security. This included the introduction of legislation for nuclear technology export controls, development of a facility-level insider threat strategy and the inclusion of a cyber-security component to the national design basis threat. Australia has also started to develop detailed guidance for the classification of nuclear security-related information. Australia's recent IPPAS mission included a review of arrangements for information security and cyber security at nuclear facilities.

Belgium: Belgium recently strengthened and updated its nuclear security legal and regulatory framework, notably with regards to the protection of sensitive nuclear information. The Cyber Security Centre for Belgium, under the authority of the Prime Minister, will be established during the course of 2014. Belgium already took the issue of information security into account by extending the scope of the "stress-tests" set up by the EU after the Fukushima accident to cyber-attacks. Steps will be undertaken with a view to a Design Basis Threat addressing the cyber security threat.

Canada: Through its regulatory body, the Canadian Nuclear Safety Commission (CNSC), Canada has established practices for information security. Among other ongoing steps Canada: is establishing national standards for the protection of electronic data and data systems that will align with the IAEA guidance and best practices; controls the export of nuclear technology under the Nuclear Safety and Control Act (NSCA); collaborates with industry in advancing best practices including to foster an enhanced nuclear security culture; is developing a national standard for cyber protection; and has established regulations and procedures for the vetting and supervision of all nuclear industry staff.

Czech Republic: The Czech Republic recognises the importance of the issue of nuclear information security and UNSC Resolution 1540. The Czech Republic participates in the IAEA initiatives on the issue of sensitive information relating to dual-use exports and the Czech Chamber of Commerce organize educative events. The National Security Authority is the authority for issues of cyber security. The State Office for Nuclear Safety is responsible for Computer Security at Nuclear Facilities and is preparing new legislation in accordance with IAEA recommendations. A governmental coordination agency has been established to respond to computer incidents, namely the Computer Emergency Response Team which operates under the National Cyber Security Centre.

Finland: Finland's gift included developing national requirements and raising awareness of nuclear information security issues both nationally and internationally. Activities in 2013 included: setting up new requirements for operators to enhance nuclear information security posture in Finland as part of new regulatory guide, conducting national joint information security exercises, hosting an IAEA international nuclear security culture workshop, publishing Finland's Cyber Security Strategy, participating in the development and conduct of IAEA training courses in nuclear security and in the development of academic educational programs in nuclear security in cooperation with the IAEA, promoting the EU CBRN action plan related to vetting procedures.

³⁶ Algeria, Australia, Belgium, Canada, Chile, Czech Republic, Finland, France, Georgia, Germany, Hungary, Indonesia, Israel, Italy, Japan, Kazakhstan, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Philippines, Poland, Republic of Korea, Romania, Spain, Sweden, Switzerland, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States of America and Viet Nam.

France: Since the NSS 2012, France has initiated a revision of its legislation and guidance on the protection of sensitive information, to update them. A law on cyber-security was adopted in December 2013 as well as new regulation on the protection and control of nuclear materials. The National Agency for Information System Security (ANSSI) is elaborating guidance defining precise requirements for cyber security in vital infrastructures. A review of the implementation of confidentiality rules by operators is to be carried out, with regards to IAEA guidance and French provisions. France encourages its operators to get involved in the IAEA's working groups on the security of information: 2 of them made presentations during the 2013 Conference on Nuclear Security.

Georgia: Georgia has taken a range of measures to strengthen nuclear security culture and nuclear information security practices. Activities have included participating in the EU CBNR Centres of Excellence initiative and hosting a regional secretariat for South East Europe, South Caucasus, Moldova and Ukraine. Georgia together with US partners implemented RIS (Radiation Information System) for taking proper control over all sources of ionizing radiation. Georgia's Integrated Nuclear Security Support Plan continued to be developed. Georgia fully recognises the need to fully implement UNSCRS 1540 and 1887 and taking relevant measures toward.

Hungary: Hungary has developed a comprehensive, systematic and graded approach for the classification and management of sensitive national information in line with the consequences of the disclosure thereof. Based on the IAEA recommendations and guidance, Hungary has prepared a national guideline, entitled „Protection of programmable systems and components in nuclear facilities”, which was identified as a good practice by the IPPAS mission hosted by Hungary in 2013. For further enhancing the IT and ITC security, Hungary requested the IAEA to provide a "National Cyber Security Workshop" in June, 2014 for 20-30 participants from competent authorities, licensees and support organizations.

Italy: In January 2013, within the framework of actions to protect sensitive nuclear information, technology and expertise, Italy enacted legislation defining the institutional architecture for managing national security and protecting critical infrastructure, in particular reinforcing protection against the threat of cyber attacks. The architecture foresees three different levels of responsibility and intervention: policy-making and strategic coordination for the development of the national plan; coordination activities to facilitate decision-making and promote the general aims of the legislation; crisis management to define and coordinate response and restoration activities involving all stakeholders.

Japan: Japan's Nuclear Regulation Authority established in 2012 gives operators' guidance on setting clear standards regarding the rigidity of information management and checks operators' procedures at annual physical protection inspections. As a member of all the international export control regimes and a responsible country that implements the UNSCR 1540 and 1887, Japan has been implementing export control of information-security-related items and technologies. The Integrated Support Center for Nuclear Nonproliferation and Nuclear Security of the Japan Atomic Energy Agency provides training programmes and seminars domestically and internationally. Introducing a legal system to check trustworthiness of personnel is now being considered.

Morocco: Under the GICNT, Morocco, in its capacity as chair of RMWG is supportive of sharing information as a GICNT fundamental principle between and among GICNT partner states, the IAEA and relevant international organisations particularly with regard to safety and security incidents involving the use of nuclear and radioactive materials. Any voluntary initiative aimed at building capacity in the field of securing sensitive information particularly in the instance of a cyber attack is welcomed, bearing in mind that the effective

protection of sensitive nuclear information fall under the responsibility of relevant state institutions.

Netherlands: In 2011, the Dutch government installed a National Cyber Council. In this Cyber Council public and private parties work together to provide information on relevant developments in the field of digital security. Following this Cyber Council the National Cyber Security Center was established in 2012. This Cyber Center provides advice on how cyber incidents can be avoided and can be detected. An updated version of the National Cyber Strategy was also published last year (2013). In 2013, a Design Basis Threat (DBT) has been approved for the nuclear sector. This DBT will be implemented by the nuclear industry by the end of March 2014.

New Zealand: The New Zealand gift included raising the profile of nuclear information security issues among domestic stakeholders and improving the national implementation of best practices. Ongoing activities have included revision of national Codes of Safe Practice relating to nuclear information security, identification of relevant training opportunities for practitioners and preparations for a future mission to New Zealand by the IAEA International Physical Protection Advisory Service.

Norway: Since the Seoul Nuclear Security Summit 2012, Norway has made progress on nuclear information security. The Norwegian Radiation protection Authority performed in 2012 an audit on nuclear information security measures taken by the operator of the two research reactors. The audit showed that information security procedures were in place and that several measures were taken to prevent such information to be compromised. However there is need for improvements. In this regard Norway is looking closely to the NSS guidelines being issued by the IAEA on information security. At present the whole system of nuclear security is under revision. All regulations and guidelines will be revised in the coming years, well aided by the IPPAS mission that will be conducted in 2015.

Republic of Korea: The Republic of Korea has the up-to-date national system for the effective management of sensitive information. In December 2013, Korea reflected IAEA guidelines on computer security in its national regulations. Korea has been implementing information security-related measures within the framework of export control regimes. In August 2012, Korea launched the Nuclear Export Promotion Service (NEPS), a one-stop online portal which facilitates effective controls on nuclear technology and sensitive information as well as nuclear related items. Korea has also contributed to strengthening discussions on the protection of critical information infrastructure (CII) by producing Seoul Framework and Commitments at the Cyberspace Conference in October 2013.

Romania: In 2013, Romania continued to stress the importance of comprehensive action to ensure the effective protection of sensitive nuclear information. Therefore, a national training course in Computer and Information Security for Nuclear Facilities was organized in Romania, in July 2013, and a national workshop on nuclear security culture has been planned for March 2014, under the Practical Arrangements between the IAEA and the National Commission for Nuclear Activities Control on cooperation in the area of nuclear security.

Switzerland: The Swiss gift basket included a pledge to identify strengths and areas for development in information security. Activities in 2013 included: a National Strategic Leadership Exercise 2013, testing crisis management of the Swiss Government, which resulted in a report. A professional development training activity organised between the Information Security Officer and the Safety Officer of the Nuclear Power Plants and improving the information exchange and application of best practice between the operators of Swiss nuclear power plants and regulators.

United Arab Emirates: The Critical Infrastructure and Coastal Protection Authority (CICPA) established an Information Protection Program Operating Manual (IPPOM). This defines how relevant entities in the nuclear sector should manage sensitive information. Regulations issued by the Federal Authority for Nuclear Regulation (FANR) for the physical protection of nuclear materials and facilities require that operators develop and implement a Cyber Security Plan to protect against cyber-attack. The nuclear industry is developing these based on international guidance. National regulations for the security of high-activity radioactive sources require the effective management of sensitive information as well as personnel background checks. The UAE will host an IAEA national workshop on cyber security in 2014.

United Kingdom: The UK gift included raising awareness of nuclear information security issues, and promulgating good practices. Activities in 2013 included: hosting discussion meetings in partnership with the Royal United Services Institute, Dutch Embassy and Kings College London, presenting at a meeting of the Global Partnership Against the Spread of Materials and Weapons of Mass Destruction, delivering a conference paper at the 2013 IAEA International Nuclear Security Conference, contributing to IAEA nuclear security guidance with experts from other States, and the UK 2013 UNSCR1540 National Action Implementation Plan highlighting measures to protect sensitive information effectively.

United States of America: Creating a cyber-security directorate and issuing industry regulations to enhance computer security at nuclear facilities; participated in WINS workshop on information security; conducting bilateral exchanges and seminars on best practices in information and personnel security; developing and implementing nuclear security culture training materials; developing guidance, with others, on the Protection and Confidentiality of Nuclear Information; and chairing the IAEA Technical Meeting on the development of "Protection and Confidentiality of Sensitive Information in Nuclear Security." Also steps taken to develop an insider threat program for classified information and security background checks for licensees handling non-classified information related to sensitive nuclear information.

Viet Nam: In Viet Nam, the awareness of nuclear information security was raised through national workshops. Activities in 2013 included: holding a national workshop, in collaboration with the US DOE on the IAEA Security Series INFCIRC 225/Rev.5, in which Fundamental Principle L – Confidentiality was highlighted; holding, in cooperation with the IAEA a workshop on DBT development methodology, in which protection of information of nuclear security related was emphasised.

EU: The EU encourages member States to ensure that nuclear operators are informed on a need-to-know basis about potential threats. In the absence of a process to quickly transfer security related information, States should consider establishing one. Under the EU CBRN Risk Mitigation Centres of Excellence Initiative, an international project is currently being implemented aiming to develop procedures and guidelines for the creation and improvement of CBRN related information management and exchange systems and to facilitate exchange of best practice. The EU supports the IAEA and contributes to enhancing national responses to cyber-crime. The last CD VI has a budget of approximately 8M Euros.

Strengthening nuclear security implementation

subscribed by Algeria, Armenia, Australia, Belgium, Canada, Chile, Czech Republic, Denmark, Finland, France, Georgia, Germany, Hungary, Israel, Italy, Japan, Kazakhstan, Lithuania, Mexico, Morocco, the Netherlands, New Zealand, Norway, Philippines, Poland, the Republic of Korea, Romania, Spain, Sweden, Turkey, Ukraine, United Arab

Emirates, the United Kingdom, the United States of America and Vietnam

Introduction

The participating States of the Nuclear Security Summit in recognizing their national and international responsibilities, have pledged to make every effort to achieve further progress with regard to the global nuclear security system, the role of the IAEA, security of nuclear materials and facilities and radioactive sources including during transportation, synergy between nuclear security and safety, combating illicit trafficking, nuclear forensics, nuclear security culture, information security and international cooperation.

Since nuclear security remains a national responsibility, it is incumbent upon each State to establish the appropriate legal framework, governance structure, and measures it sees fit to advance nuclear security.

International principles and guidelines can help States establish or improve their national nuclear security regime. The IAEA Nuclear Security Series publications contain objectives and essential elements of a State's nuclear security regime, along with recommendations and additional implementing guidance. The Nuclear Security Series document NSS20 is endorsed by the IAEA Board of Governors and reflects a broad international consensus.

The IAEA recommendation documents NSS13, NSS14 and NSS15 have been prepared by nuclear security experts from more than 40 member States. In addition, the IAEA Code of Conduct on the Safety and Security of Radioactive Sources (Code of Conduct) provides non-binding international guidance for the lifecycle control of high-risk radioactive sources and 120 States to date have made a political commitment to follow its guidance.

The Initiative

The current and previous Summit hosts (NL, ROK, US) have launched a concrete initiative that allows States (hereafter referred to as "Subscribing States"), at their own discretion, to subscribe explicitly to the essential elements of a nuclear security regime and to commit to the effective and sustainable implementation of the principles therein.

Such commitment does not alter the non-binding status of the Nuclear Security Series documents. States may commit themselves voluntarily to implement the intent of the individual recommendations.

The proposed joint statement is attached to this paper. It contains a commitment to embed the objectives of the nuclear security fundamentals and the IAEA recommendations in national rules and regulations and to host peer reviews to ensure effective implementation. Furthermore, it contains actions for consideration by Subscribing States that would further ensure continuous improvement of the nuclear security regime. Although the listed actions are not chosen randomly, the list should not be considered to be limitative. States are encouraged to develop or assess new ideas to improve the nuclear security regimes or the global nuclear security architecture.

Aim

The aim of this initiative is to demonstrate progress made in improving nuclear security worldwide following the Nuclear Security Summit in The Hague in 2014. Public commitment to subscribe to the fundamentals of nuclear security and to commit to meet the intent of the recommendations contained in the IAEA Nuclear Security Series and the Code of Conduct should result in improved nuclear security. Such a commitment could also serve as a role model worldwide of excellent and transparent behaviour.



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