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**Preparatory Committee for the 2015 Review  
Conference of the Parties to the Treaty on the  
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**Implementation of the Treaty on the Non-Proliferation of  
Nuclear Weapons**

**Submitted by the People's Republic of China**



## **Implementation of the Treaty on the Non-Proliferation of Nuclear Weapons in the People's Republic of China**

As called for in the Action Plan of the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, the Governments of the five nuclear-weapon States parties to the Treaty are working to implement action 5 to “further enhance transparency and increase mutual confidence”, and to submit national reports on their implementation of action 5 and other undertakings to the 2014 Preparatory Committee based on a common framework. Action 21 states that “as a confidence-building measure, all the nuclear-weapon States are encouraged to agree as soon as possible on a standard reporting form and to determine appropriate reporting intervals for the purpose of voluntarily providing standard information without prejudice to national security.” The framework for our national reports contains unified headings for reporting relevant information, and covers all the three pillars of the Treaty: disarmament, non-proliferation, and peaceful use of nuclear energy. We encourage all the States parties to use the same report template, in accordance with action 20.

China is a nuclear-weapon State and the largest developing country in the world. China seeks a peaceful, stable and prosperous world and supports the international non-proliferation regime, which contributes to this goal. China attaches great importance to the Treaty as the cornerstone of the international non-proliferation regime; it strictly abides by the Treaty's provisions and has been making unremitting efforts to achieve the three objectives of the Treaty: non-proliferation, nuclear disarmament and peaceful use of nuclear energy; it also promotes the universality, authority and effectiveness of the Treaty.

In response to the request of the 2000 and 2010 Review Conferences, the Chinese Government hereby submits the following report on its implementation of the Treaty:

### **I. Reporting on national measures relating to nuclear disarmament**

As a permanent member of the Security Council and a nuclear-weapon State, China is firmly committed to an open, transparent and responsible nuclear policy; it faithfully implements its nuclear disarmament obligations under the Treaty and advocates the complete prohibition and thorough destruction of nuclear weapons. China is pleased to see that this position has been gaining growing acceptance from countries and the international community in recent years. China will continue to do its part to advance the global nuclear disarmament process and to achieve a world free of nuclear weapons.

#### **A. National security policies, doctrines and activities concerning nuclear weapons**

China always advocates and promotes the complete prohibition and thorough destruction of nuclear weapons. China had no choice but to develop nuclear weapons at a particular time in its history for the sole purpose of self-defence, self-

protection and safeguarding of its national security, and not for threatening other countries. It advocates responding to nuclear threats, breaking the nuclear monopoly, preventing nuclear war, and eliminating nuclear weapons. In 1964, on the very first day when China developed its nuclear weapons, the Chinese Government issued a statement proposing a world summit to discuss the complete prohibition and thorough destruction of nuclear weapons. China also called for the negotiation and conclusion of a convention on the complete prohibition of nuclear weapons.

China is always committed to a nuclear strategy of self-defence. Its policies regarding the role, use and warning status of its nuclear weapons, the scale of its nuclear arsenal, and nuclear arms control are based on this commitment. China's nuclear weapons are for the sole purpose of defending against possible nuclear attacks and never for threatening or targeting any other country. China has never provided a nuclear umbrella for any other country or deployed nuclear weapons in any other country. China has never taken part in any form of a nuclear arms race. It never competes with other countries in terms of nuclear input, quantity or scale, and always keeps its nuclear arsenal at the minimum level required for its national security.

China maintains its pledge to not be the first to use nuclear weapons at any time or under any circumstances. Over the past few decades, whether confronted with a nuclear threat or with nuclear blackmail, as was the case during the cold war, or when faced with the drastic changes occurring in the post-cold-war international environment, China has never deviated from its pledge and will never do so in the future.

China has also actively worked for a multilateral treaty on no-first-use of nuclear weapons among nuclear-weapon States, and had formally presented a draft "Treaty on Mutual No-First-Use of Nuclear Weapons" to the other four nuclear-weapon States in January 1994. China also seeks to conclude bilateral and multilateral agreements on no-first-use of nuclear weapons with other nuclear-weapon States.

The policy of no-first-use of nuclear weapons can lower the threat of nuclear weapons, reduce the risk of a nuclear war and prevent the proliferation of nuclear weapons. It is an important step towards complete and thorough nuclear disarmament and the establishment of a nuclear-weapon-free world. China's consistent no-first-use of nuclear weapons pledge is in itself a genuine action of nuclear disarmament.

China is the only nuclear-weapon State that has pledged unconditionally not to use or threaten to use nuclear weapons against non-nuclear-weapon States and nuclear-weapon-free zones. In April 1995, the Chinese Government issued a statement reaffirming its unconditional negative security assurances to all the non-nuclear-weapon States and its commitment to offer them positive security assurances. In 2000, China and the other four nuclear-weapon States issued a joint statement, reaffirming their security assurances made in the Security Council resolution 984 in 1995. At the request of Ukraine and Kazakhstan, the Chinese Government issued statements offering security assurances to the two countries in December 1994 and February 1995, respectively.

China maintains that the international community should negotiate and conclude at an early date an international legal instrument to unconditionally

provide negative security assurances to all the non-nuclear-weapon States and support the efforts by the Conference on Disarmament to start substantive work in this regard as soon as possible.

China's self-defence-oriented nuclear strategy is deeply rooted in its military culture of focusing on self-protection. The Chinese people advocate harmony and peace, and have a long tradition of seeing war only as a last resort. As a Chinese saying goes, "belligerence will bring a country to its destruction, no matter how powerful it is". Being cautious about going to war is an important part of Chinese military culture. Therefore, ever since the birth of nuclear weapons, the Chinese Government has stated clearly that atomic bombs cannot end a war, and has committed itself to a no-first-use of nuclear weapons strategy. China's position is to oppose and prevent nuclear wars and, more importantly, to not be the one to start a war. Another important concept in Chinese military culture is that of a "just war", which means that "a war must be well justified" and "must promote the right and punish the wrong". All these have directly contributed to the doctrine of "winning the war by letting the enemy launch the first strike" in China's ancient military theory. The no-first-use policy is also a continuation of the "just war" philosophy. Yet another important doctrine in Chinese military culture is that of "subduing the enemy without fighting," an idea inspired by the famous military strategist Sun Tzu. It means that violence should be avoided as much as possible. A country should not only seek military victory, but also political victory and peace, and to win the hearts of its people. It is impossible for a country to achieve complete victory or to achieve its goals by dominating and eliminating an ethnic group or another country and seeking only its own interests. China does not want to see the humanitarian calamities caused by nuclear war. That is another important reason why China is committed to a no-first-use of nuclear weapons policy.

## **B. Nuclear weapons, nuclear arms control (including nuclear disarmament) and verification**

China exercises utmost restraint in the development of its nuclear weapons, which is consistent with its quest for complete prohibition and thorough destruction, its no-first-use of nuclear weapons policy and its self-defence-oriented nuclear strategy. China's first-generation leaders, Chairman Mao Zedong and Premier Zhou Enlai, unequivocally stated that "our country may manufacture a small number of atomic bombs, but we do not plan to use them and we have them only as defensive weapons". They instructed the relevant departments to be economical in their research and development and not to produce "too many" nuclear weapons, as such weapons were to be scrapped eventually and too many of them would become a burden for the country. China has never taken part in any nuclear arms race in any form with any country in the past, nor will it do so in the future. China's nuclear arsenal is very limited in scale and is kept at the minimum level required for its national security, thus enabling China to make significant contributions to the international nuclear disarmament process. China has officially closed its nuclear weapon research and development base in Qinghai. After environmental restoration, the whole site was handed over to the local government.

China's keeps a moderate level of readiness in peace time. If China comes under a nuclear threat, its nuclear forces will, upon orders from the Central Military Commission, go into a higher alert level, in preparation for a nuclear counter-attack

to deter the enemy from using nuclear weapons against China. If China comes under a nuclear attack, it will launch a resolute counter-attack against the enemy.

China's nuclear weapons are under the direct command of the Central Military Commission. China attaches great importance to ensuring the safety and effective control of its nuclear weapons and related facilities, and has taken concrete measures in this regard. China's relevant institutions and combat troops strictly implement the nuclear safety control system, the accreditation system of nuclear-related personnel and the emergency response mechanism for nuclear-weapon-related accidents. China has adopted reliable technologies to strengthen the safety and physical protection of its nuclear weapons during storage, transportation and training, and has put in place special safety measures to avoid unauthorized and accidental launches, in order to ensure the absolute safety of these weapons. China has modernized its nuclear weapons solely to ensure the safety, security, reliability and effectiveness of its nuclear arsenal. No accident relating to the security and safety of nuclear weapons has ever occurred in China.

China actively supports multilateral nuclear disarmament efforts and has and has made concrete efforts in this regard.

China maintains that all nuclear-weapon States should fulfil in good faith their obligations under article VI of the Non-Proliferation Treaty and to publicly undertake not to seek to possess nuclear weapons indefinitely. Nuclear disarmament should be a just and reasonable process of gradual and balanced reduction. States with the largest nuclear arsenals bear a special responsibility for nuclear disarmament and should take the lead in reducing their nuclear arsenals drastically. When conditions are ripe, all nuclear-weapon States should join the multilateral nuclear disarmament framework. To attain the ultimate goal of complete and thorough nuclear disarmament, the international community should develop, at an appropriate time, a viable and long-term plan of phased actions, including the conclusion of a convention on the complete prohibition of nuclear weapons.

Over the years, China has voted in favour of important nuclear disarmament resolutions adopted by the General Assembly, such as those entitled "Towards a nuclear-weapon-free world: accelerating the implementation of nuclear disarmament commitments", "Nuclear disarmament", "The Convention on the Prohibition of the Use of Nuclear Weapons" and "Conclusion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons".

China expects the Conference on Disarmament to start its substantive work on such important topics as nuclear disarmament, security assurances to non-nuclear-weapon States, a treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices (Fissile Material Cut-off Treaty) and prevention of an arms race in outer space, in a comprehensive and balanced manner.

China supports the Comprehensive Nuclear Test-Ban Treaty (CTBT) and is actively preparing for its national implementation.

China supports the purposes and principles of the CTBT and was one of the first countries to sign the treaty. China has strictly abided by its commitment to a moratorium on nuclear tests. China supports the early entry into force of the CTBT and all the international efforts made in this regard. China has participated in all the conferences on facilitating the entry into force of the treaty and actively supported

relevant resolutions in the First Committee of the General Assembly. China has paid its assessed contributions to the Preparatory Commission for the Comprehensive Nuclear Test-Ban Treaty Organization (CTBTO) on time and in full.

China has taken an active part in all the work of the Provisional Technical Secretariat of the Preparatory Commission and is steadily preparing for the national implementation of the treaty. China has established its national preparatory agency charged with the comprehensive implementation of the CTBT. China has undertaken construction work on eleven monitoring stations and one radionuclide laboratory of the International Monitoring System for the CTBT, of which six seismic stations, three radionuclide stations, the Beijing radionuclide laboratory and the national data centre in Beijing have been completed. Construction work on one of the two infrasound stations is close to completion and the other one is under preparation. As called for under the agreement, the Beijing and Guangzhou radionuclide stations have entered the third phase of the International Noble Gas Experiment. The Beijing and Lanzhou radionuclide stations regularly send monitoring data on air particles to the Provisional Technical Secretariat. The Haila'er and Lanzhou primary seismic stations as well as the Beijing and Lanzhou radionuclide stations are undergoing testing and evaluation before certification.

China has taken an active part in the negotiations of the on-site inspection operational manual and other operational manuals as well as activities organized or supported by the PTS aimed at enhancing the implementation capabilities of signatory states and the monitoring capabilities of the international monitoring system. China has developed the mobile Argon-37 rapid measuring and detection system (MARDS) and the radio xenon sampling, purification and measurement system (XESPM), which can be used to quickly detect gases from underground nuclear tests. The equipment will be used for the on-site inspection integrated field exercise in 2014.

In recent years, China has continued to host seminars and training courses in cooperation with the Provisional Technical Secretariat. In April 2013, the Chinese Government and the Provisional Technical Secretariat co-organized equipment training courses for MARDS and XESPM in Chengdu and Beijing, respectively, in which 10 experts from 9 countries participated. The training courses gave them a better insight into the Chinese equipment, thus allowing participants in the integrated field exercise in 2014 to enjoy the full benefits of the equipment. In November 2013, the Chinese Government and the Provisional Technical Secretariat co-organized the on-site inspection workshop-21 in Yangzhou, and the participants discussed and facilitated the preparations for IFE14.

China supports the early negotiation and conclusion of a fissile material cut-off treaty.

The Chinese Government is of the view that concluding a fissile material cut-off treaty (FMCT) to completely ban the production of fissile material for nuclear weapons or other nuclear explosive devices will contribute to nuclear disarmament and non-proliferation, and is an important step towards the complete prohibition and thorough destruction of nuclear weapons.

China always supports the conclusion of a non-discriminatory, multilateral and internationally verifiable FMCT as early as possible in the Conference on Disarmament on the basis of document CD/1299 and the mandate contained therein.

As the sole multilateral disarmament negotiating forum, the Conference on Disarmament is the best venue for the negotiation of an FMCT. China expects the Conference on Disarmament to agree on a comprehensive and balanced programme of work so as to start substantive work, including on the negotiation of a fissile material cut-off treaty.

China supports the Conference on Disarmament's decisions on the mandate, working mechanism and other relevant issues of FMCT negotiation. It has earnestly participated in all FMCT-related activities within the framework of the Conference on Disarmament and has been actively interacting with other parties in this regard. When it was Chair of the Conference on Disarmament, China had organized informal discussions on the FMCT. China has also been an active player in P5 coordination and the dialogue between the five permanent members of the Security Council (P5) and other countries.

On 15 May 2013, China submitted its views on the FMCT to the United Nations Office for Disarmament Affairs, pursuant to General Assembly resolution [67/53](#). China is of the view that the United Nations Group of Governmental Experts on the FMCT should operate within the mandate set out in General Assembly resolution [67/53](#). It should discuss relevant issues and make recommendations in strict compliance with the principle of consensus. Should the Conference on Disarmament agree upon a programme of work, the Group of Governmental Experts should conclude its work for submission to the Conference on Disarmament. China is represented in the Group of Governmental Experts and has actively attended relevant meetings through its delegations.

China actively carries out research on nuclear arms control verification technologies and has made important progress in the research on verification measures and technologies. China's research covers verification technologies regarding nuclear warhead dismantlement and authentication, and the storage and disposition of nuclear components and nuclear material, with emphasis on authentication technology of nuclear warheads and components, information barrier technology, monitoring technology used in the dismantling process, and chain-of-custody technology on storage and transportation. China has exchanged views with other nuclear-weapon States on its research progress in the P5 confidence-building-measures conferences.

China has established national verification mechanisms for a comprehensive nuclear test ban, including the remote underground nuclear test monitoring system, the atmospheric radionuclide monitoring system and the on-site noble gas sampling and measuring system, which played an important role in monitoring the leakage of radioactive substances from Japan's Fukushima Daiichi nuclear power plant and the nuclear tests of the Democratic People's Republic of Korea.

On 11 March 2011, an earthquake and tsunami hit the Fukushima Daiichi nuclear power plant, causing huge leakage of radioactive substances. The CTBTO immediately launched a process to monitor the spread of radioactive substances around the globe. China's Beijing, Lanzhou and Guangzhou radionuclide monitoring stations and the Beijing Radionuclide Laboratory provided a large amount of data during the monitoring period at the request of the Provisional Technical Secretariat. These data greatly helped the secretariat to monitor the spread of radioactive substances in East Asia and Northeast Asia, and also contributed to research on the

spread of particles and gases in the atmosphere as well as the improvement of the atmospheric transfer model used in comprehensive test-ban verification.

On 12 February 2013, the Democratic People's Republic of Korea conducted its third nuclear test. The CTBTO conducted related monitoring. The Beijing and Lanzhou radionuclide monitoring stations provided atmospheric particles monitoring data to the CTBTO for this purpose continuously over an extended period of time.

China supports and actively advances the negotiations on an internationally verifiable FMCT, and has conducted research on a reasonable, effective and cost-effective verification system which can address the concerns of all signatory States, as well as the system's relationship with the safeguards of the International Atomic Energy Agency (IAEA).

China will continue to dedicate itself to research on nuclear arms control verification technology so as to facilitate the international nuclear arms control process.

### **C. Transparency and confidence-building measures**

China's nuclear strategy and policy have been consistent, open and transparent. China holds the view that nuclear transparency should be guided by the important principle of "undiminished security for all", and that relevant measures should be adopted by countries on a voluntary basis in line with their national situation, taking full consideration of their specific security conditions. Under this premise, China has made many efforts and taken active measures in nuclear transparency.

China published three arms control white papers in 1995, 2003 and 2005 respectively, entitled "China: Arms Control and Disarmament", "China's Non-Proliferation Policy and Measures", and "China's Endeavours for Arms Control, Disarmament and Non-Proliferation". From 1998 to 2010, it issued seven white papers on national defence, and in 2013, it issued the white paper entitled "The Diversified Employment of China's Armed Forces". In all these documents, China clearly explained its nuclear strategy, the role of nuclear weapons, its employment policy, the development of its nuclear forces, the command and control of its nuclear forces, and its alert status.

China has taken a series of other confidence-building measures. China actively seeks to ensure that nuclear-weapon States do not aim their nuclear weapons at each other. In September 1994, China and the Russian Federation issued a joint statement that they will not target their strategic nuclear weapons at each other. In June 1998, the Presidents of China and the United States declared that they will not target their countries' strategic nuclear weapons at each other. In May 2000, the five nuclear-weapon States, namely, China, France, Russia, the United Kingdom and the United States, declared in a joint statement that their nuclear weapons would not be targeted at any State. In 2009, the Heads of State of China and the United States reaffirmed their commitment not to target their nuclear weapons at each other. In the same year, China and the Russian Federation signed the Agreement on the Notification of Launch of Ballistic Missiles and Space Launch Vehicles, which has been functioning well since then.



To enhance mutual trust, China arranged visits by the United States Secretary of Defence Donald Rumsfeld, House Armed Services Committee Chairman Ike Skelton, Secretary of Defence Robert Gates, and Chairman of the Joint Chiefs of Staff Admiral Mike Mullen to the headquarters of the Second Artillery Force of the Chinese People's Liberation Army in October 2005, August 2007, January 2011 and July 2011, respectively. China has also established direct hotlines between its Ministry of National Defence and its Russian and American counterparts in 2008.

China actively participated in the P5 conferences held in London, Paris, Washington and Geneva in 2009, 2011, 2012 and 2013, respectively, and has maintained dialogue and consultations with other P5 States on confidence-building measures and implementation of the Non-Proliferation Treaty. The P5 Beijing conference was successfully held on 14-15 April 2014. P5 States discussed of the enhancement of strategic mutual trust and coordination in implementing Treaty review outcomes and issued a joint statement at the end of the conference. China also hosted a public side event attended by P5 delegates and representatives from academic institutions and media organizations to promote mutual understanding and trust.

China is leading the work of the P5 working group on glossary and definition of nuclear terms. It hosted two meetings of the working group's experts in Beijing in September 2012 and September 2013 and made great efforts to promote the compilation of terms. As agreed, P5 will submit a nuclear glossary in Chinese, English, French and Russian to the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons.

These measures are conducive to increasing mutual understanding and trust, strengthening consensus and reducing misunderstanding, and as such help to maintain regional and global security.

#### **D. Other related issues**

China is of the view that maintaining global strategic balance and stability will lay a solid foundation for the international nuclear disarmament process. Therefore, the Chinese Government believes that the practice of seeking an absolute strategic advantage should be abandoned and does not approve of the deployment of missile defence systems that disrupt global strategic balance and stability. China is pursuing international cooperation in this regard.

China actively promotes the multilateral process of preventing the weaponization of and an arms race in outer space. In February 2008, China and the Russian Federation jointly submitted a draft treaty on the prevention of the placement of weapons in outer space, the threat or use of force against outer space objects (CD/1839), and called for discussions on the issue at the Conference on Disarmament. China and the Russian Federation will shortly submit a revised draft treaty to the Conference on Disarmament. China supports outer space transparency and confidence-building measures. As one of the sponsors of relevant General Assembly resolutions on the topic, China attended the 2012-2013 United Nations Group of Government Experts meeting on outer space transparency and confidence-building measures and played an active part in drafting the report of the meeting. China has also participated in a constructive manner in the discussions on a code of conduct for outer space activities.

## **II. Reporting on national measures relating to non-proliferation**

China firmly opposes the proliferation of nuclear weapons in any form and has strictly fulfilled its obligations under the Non-Proliferation Treaty. China has acceded to all international treaties and mechanisms concerning nuclear non-proliferation and has strictly implemented the non-proliferation resolutions adopted by the Security Council. China has established a comprehensive system of laws and regulations on nuclear export control and has been taking robust measures to ensure its effective implementation. China has been treating the non-proliferation issue in a highly responsible manner and has been playing an active part in the political resolution of regional nuclear disputes.

### **A. Safeguards**

Upon joining the International Atomic Energy Agency (IAEA) in 1984, China undertook to fulfil the safeguards obligations under the IAEA Statute, and declared in 1985 that it will voluntarily subject parts of its civilian nuclear facilities to IAEA safeguards. In 1988, the Chinese Government signed the Agreement between the People's Republic of China and IAEA for the Application of Safeguards in China. In December 1998, China signed the Additional Protocol to the IAEA Safeguards Agreement and completed its relevant domestic legal procedures in March 2002, becoming the first nuclear-weapon State to implement the Additional Protocol.

China vigorously supports and cooperates with IAEA in implementing safeguards. China has proposed 20 nuclear facilities for the IAEA safeguards, including pressurized water reactors, heavy water reactors, research reactors, high-temperature gas-cooled reactors, uranium enrichment plants and nuclear fuel element production lines, including six new facilities that were proposed after 2010. China's efforts have not only broadened the safeguards coverage in China, but also help to increase the Agency's technological capabilities in safeguards.

In 2007, China joined the IAEA Member State Support Programmes, and undertook the responsibility of research and development of safeguards means and methods. China has assigned experts to IAEA on a no-fee basis, joined the IAEA network of analytical laboratories, and carried out validation activities.

China attaches great importance to the development of safeguards professionals. In late 2006, China and IAEA jointly established a training centre on nuclear safeguards and security, which organizes training activities on safeguards inspection, nuclear material inventory and control, and nuclear export control, thus enhancing the technological capabilities and human resources reserves in relevant fields.

### **B. Export controls**

China controls and regulates its nuclear exports stringently, and adopted three clear principles in this regard, namely peaceful use only, acceptance of IAEA safeguards, and no transfers to any third party without the prior consent of the Chinese Government.

In 1991, the Chinese Government announced that it would notify IAEA of China's export to or import from non-nuclear-weapon States of any nuclear material

exceeding one effective kilogram. In July 1993, China formally undertook that it would voluntarily notify IAEA of all its imports and exports of nuclear materials as well as its exports of nuclear equipment and related non-nuclear material.

In May 1996, China undertook not to provide assistance, including nuclear export, personnel and technical exchanges and cooperation, to nuclear facilities of non-nuclear-weapon States that were not subject to IAEA safeguards.

In line with the principle of the rule of law, the Chinese Government has constantly worked to strengthen and improve the legal system of nuclear export control and stepped up efforts to ensure the effective enforcement of its non-proliferation policies. Since the mid-1990s, China has gradually set up a comprehensive legal system for the control of exports of nuclear, biological, chemical, missile and other sensitive items and technologies as well as all military products.

In 1987, the Chinese Government adopted the Regulations on the Control of Nuclear Materials, and introduced a licensing system for nuclear materials. The regulations clearly designated the agencies in charge of nuclear material supervision and management along with their responsibilities; nuclear material control measures; the application, examination and issuing of nuclear material licenses; nuclear material accounting, inventory and physical protection; and related reward or punishment measures.

In September 1997, the Chinese Government adopted the Regulations on the Control of Nuclear Exports, stipulating that no assistance should be provided to nuclear facilities that are not subject to IAEA safeguards; that nuclear exports should only be handled by bodies designated by the State Council; and that the Government should implement a nuclear export licensing system. The Regulations also provide for a more rigorous system for nuclear export clearance, severe penalties for violations and a comprehensive and detailed list of controlled items.

In June 1998, the Chinese Government adopted the Regulations on Export Control of Nuclear Dual-Use Items and Related Technologies, instituting strict controls on the export of nuclear dual-use items and related technologies and a licensing system for related exports. It also established an exporters' registration system, procedures for export approval, and penalties for violations.

The Amendments to the Criminal Law of the People's Republic of China, adopted in December 2001, stipulate that the unauthorized manufacturing, trafficking and transporting of radioactive substances are criminal offences and shall be punished as such. In February 2002, the Chinese Government adopted the Provisions on Safeguard and Supervision of Nuclear Import and Export and Nuclear Cooperation with Foreign Countries.

China amended the Regulations of the People's Republic of China on the Control of Nuclear Exports in November 2006 and the Regulations of the People's Republic of China on the Control of the Export of Dual-Use Nuclear Items and Related Technologies in January 2007.

In April 2012, in order to strengthen nuclear import and export regulations, China enacted the Government Assurance Management Rules, and the China Atomic Energy Authority (CAEA) and the United States National Nuclear Security Administration jointly published the Technical Guidance on the Nuclear Export

Control Lists. In 2013, CAEA published the Working Manual on Government Assurance Management. These measures have helped to increase the professional competence of Chinese personnel involved in nuclear export controls and to strengthen enforcement of such controls.

Regarding missiles, the Chinese Government adopted the Regulations on the Export Control of Missiles and Missile-Related Items and Technologies in 2002. Its control list is in general consistent with the Annex to the Missile Technology Control Regime Guidelines.

With regard to the nuclear export control system, China has adopted internationally accepted practices, including exporters' registration, end-user and end-use certification, licensing system, examination and approval principles from the perspective of non-proliferation, list-based control and the "catch-all" principle.

China joined the Zangger Committee in October 1997 and the Nuclear Suppliers Group in June 2004. The control lists under the Regulations on the Nuclear Export Control and Regulations on the Export Control of Nuclear Dual-Use Items and Related Technologies cover all the items and technologies listed by the Zangger Committee and the Nuclear Suppliers Group.

### **C. Nuclear security**

China strictly fulfils its international nuclear security obligations. In 1989, China acceded to the Convention on the Physical Protection of Nuclear Material and ratified the Amendment to the Convention in 2008. It has improved its nuclear material security and safety system to meet the requirements of the Convention. China participated in the drafting of the International Convention for the Suppression of Acts of Nuclear Terrorism and completed its domestic process of ratification in August 2010. China strictly abides by Security Council resolutions 1373, 1540 and 1887, and takes concrete measures to prevent non-State actors from acquiring sensitive nuclear materials. China actively supports and participates in international efforts to strengthen the management of radioactive sources, and supports the IAEA Code of Conduct on the Safety and Security of Radioactive Sources.

China continuously improves its domestic legislation. It amended its Regulations on the Safety and Protection of Radioisotopes and Radiation Devices in 2005, and the Regulations on the Administration of Transport Safety of Radioactive Articles entered into force on 1 January 2010. The newly adopted Regulations on the Safe Management of Radioactive Waste took effect on 1 March 2012. In 2013, CAEA issued seven guidelines, including those concerning the compilation requirements for nuclear material licence application, nuclear material physical inventory, and export and import control. These regulations are in line with the rules for the protection rules of nuclear material in international transport and the rules for power plant security, and have further enhanced China's nuclear security regulation and supervision.

China has been increasing its input into and improving management of its nuclear security. It carried out a comprehensive security analysis and examination of its domestic nuclear facilities recently and issued an upgrading plan. It has completed the English-Chinese translation of the *IAEA Nuclear Series*, thus helping

to increase its readership and application in China. China has also increased its input into the development of human resources for nuclear security.

China takes active steps to minimize the use of sensitive nuclear materials. It has phased out two high enriched uranium miniature research reactors, and is pushing forward with the conversion of another miniature research reactor into a low enriched uranium reactor. The experimental stage of the project has been completed and the actual conversion will begin soon.

China attaches great importance to research and development on new nuclear security technologies. It has developed independently a range of new security equipment, including explosive detection systems and radionuclide identification systems. These systems have been successfully deployed to ensure the security of major international events, such as the 2008 Beijing Olympic Games, the Shanghai 2010 World Expo and the Guangzhou 2010 Asian Games.

China has been an active player in the Nuclear Security Summit process and has made contributions to consensus-building among members of the international community on nuclear security. Former President Hu Jintao led the Chinese delegation to the Washington Summit, held in 2010, and another to the Seoul Summit, held in 2012, where he expounded China's efforts in the area of nuclear security. President Xi Jinping led a delegation to the 2014 Nuclear Security Summit, held at The Hague, where he systematically explained China's approach to nuclear security.

China has taken active measures to implement the outcomes of the Nuclear Security Summits. It has been steadily advancing its domestic nuclear security legislation, values international cooperation on high enriched uranium security, and is helping Ghana to convert its high enriched uranium research reactor under the framework of IAEA. China takes strong measures to combat illicit trafficking of nuclear materials and keeps strengthening inspection and detection capabilities at gateway ports. It has set up a customs training centre for radiation detection in collaboration with the United States and has carried out a series of cooperation projects with other countries, including the Russian Federation and Kazakhstan.

China actively supports and participates in a broad range of nuclear security cooperation arrangements at multiple levels. It has been actively participating in various activities of the Global Initiative to Combat Nuclear Terrorism, of which it was a founding partner. In 2006, China joined the IAEA Illicit Trafficking Database and shared information and resources with other countries. In 2007, China and IAEA signed the Practical Arrangement on Nuclear Security Cooperation and the two sides cooperated in ensuring nuclear security at events such as the Beijing Olympic Games. In 2010, China and IAEA signed the second Practical Arrangement on Nuclear Security Cooperation with a view to extending cooperation between the two sides into such areas as nuclear security regulations and standards, physical protection of nuclear material and nuclear facilities, capacity-building and training, and nuclear security culture. In 2013, China and IAEA signed the Practical Arrangements of Cooperation on China's Centre of Excellence on Nuclear Security, making a detailed plan for cooperation and utilization of the newly centre for nuclear security training. China has also worked with the United States to upgrade the security facilities of regional radioactive source storage centres and centralized the storage of several dozens of highly dangerous radioactive sources. In January 2011, China and the United States signed the Memorandum of Understanding for

Cooperation in Jointly Establishing the Radiation Detection Training Center of China Customs. In addition to meeting China's domestic training demand, the centre also provides training to countries in the region.

China actively provides assistance to other developing countries on nuclear security. In recent years, China and IAEA have jointly hosted nuclear security training courses and seminars on various topics. China has also provided assistance to countries in its region through technical presentations and personnel training. China has been a consistent contributor to the IAEA Nuclear Security Fund for many years, with a view to promoting nuclear security capacity-building in countries in the Asia-Pacific region. China has also donated its independently developed nuclear security equipment to IAEA. China has participated in the high enriched uranium miniature reactor conversion project under the framework of IAEA. China's Centre of Excellence on Nuclear Security, which was set up jointly by China and the United States, had its foundation stone laid in 2013 and the construction work for the centre is expected to be completed by 2015. The centre will be equipped with world-class equipment and technology in nuclear analysis, nuclear security equipment testing and emergency preparedness, and will become the biggest centre for nuclear security exchanges and training with the widest range of equipment and the most advanced technologies in the world.

#### **D. Nuclear-weapon-free zones**

China always respects and supports the efforts made by countries to establish nuclear-weapon-free zones or zones free of weapons of mass destruction, in light of the specific situation of their respective regions and on the basis of voluntary consultations and agreements.

China has signed and ratified all the protocols to nuclear-weapon-free zone treaties that are open for signature, including Additional Protocol II to the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, Additional Protocols II and III to the South Pacific Nuclear Free Zone Treaty, and Additional Protocols I and II to the African Nuclear-Weapon-Free Zone Treaty. China has also acceded to the Antarctic Treaty, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies and the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof.

China supports the efforts of the member countries of the Association of Southeast Asian Nations (ASEAN) to establish a nuclear-weapon-free zone in Southeast Asia, and has played a constructive role in facilitating the agreement on the Protocol to the Southeast Asia Nuclear-Weapon-Free Zone Treaty between ASEAN and the P5. China also supports the establishment of a nuclear-weapon-free zone in Central Asia, and has no substantive difficulty with the current text of the treaty on the nuclear-weapon-free zone and its protocol. China has reiterated on many occasions its readiness to consider signing the above-mentioned protocols at an early date once they are open for signature.

China supports the establishment of a zone free of nuclear weapons and other weapons of mass destruction in the Middle East, and hopes to see early achievement of this goal. China joined the consensus reached at previous sessions of the General

Assembly on resolutions on the establishment of a nuclear-weapon-free zone in the Middle East and supports the early convening of an international conference on this issue.

China respects Mongolia's nuclear-weapon-free status and supports the relevant resolutions adopted at previous sessions of the General Assembly. In 2000, China and the other four nuclear-weapon States issued a joint statement undertaking to provide Mongolia with security assurances. In 2012, they issued another joint statement reaffirming their support for Mongolia's nuclear-weapon-free status and their security assurance to Mongolia.

## **E. Compliance and other related issues**

China has been strictly fulfilling its relevant international non-proliferation obligations and responsibilities in various fields. It abides by the rules and resolutions on non-proliferation obligations adopted by international agencies such as IAEA and the Security Council.

China attaches importance to the role of the Non-Proliferation Treaty as the cornerstone of the international nuclear non-proliferation regime; it calls on all states that are yet to join the Treaty to do so as early as possible as non-nuclear-weapon States, and supports the international community's efforts to work out detailed measures against withdrawal from the Treaty and to raise the bar for withdrawal.

## **F. Other contributions to non-proliferation**

China addresses the non-proliferation issue in a highly responsible manner, actively participates in international non-proliferation cooperation and works vigorously to promote the settlement of regional nuclear disputes. China is of the view that the international community should pursue a new security concept based on mutual trust, mutual benefit, equality and coordination, reject the practice of utilitarianism and double standards, enhance the fair, reasonable and non-discriminatory nature of the international nuclear non-proliferation regime, and address nuclear proliferation concerns through political and diplomatic means within the existing framework of international law.

On the Korean Peninsula nuclear issue, China is committed to achieving a nuclear-free Korean Peninsula, maintaining peace and stability on the Peninsula and in Northeast Asia, and pursuing a peaceful solution to the issue through dialogue and consultations. China has used various channels to work with all the parties of the six-party talks in an extensive and in-depth manner with a view to an early resumption of the talks.

On the Iranian nuclear issue, in order to maintain the international non-proliferation regime and promote peace and stability in the Middle East, China has stayed committed to encouraging peaceful negotiations and has actively participated in the diplomatic efforts to address this issue through dialogue and negotiations. Through the joint efforts of the five permanent members of the Security Council and Germany (P5+1) and Iran, substantial progress has been made in negotiations on the Iranian nuclear issue in the form of a first phase agreement.

China has made a voluntary contribution of 1,500,000 yuan to IAEA to carry out safeguard and verification activities in Iran under the agreement. At present, the P5+1 and Iran are conducting a new round of talks. China has proposed five principles for a comprehensive solution of the Iranian nuclear issue, which have been well received by all the other parties. China will continue to take an active part in the pursuit of a solution.

### **III. Reporting on national measures relating to the peaceful use of nuclear energy**

China has been actively engaged in the peaceful use of nuclear energy and international cooperation in that regard, and supported the right of all countries, especially developing countries, to the peaceful use of nuclear energy. China holds the view that non-proliferation cannot be used as an excuse to undermine this right. China attaches importance to enhancing technical research and industrial development for the peaceful use of nuclear energy, and has gained rich experience in this regard. On this basis, China has vigorously participated in and supported multilateral cooperation efforts to promote the development of nuclear technology and the peaceful use of nuclear energy, and has assumed international obligations in that regard.

#### **A. Promoting the peaceful use of nuclear energy**

For the past 50 years, China has been able to lift its nuclear industry to a level commensurate with conditions prevailing in the country. A full-scale nuclear industry system including nuclear power generation, nuclear fuel cycle and nuclear technology application has been gradually put in place.

The Chinese Government considers the development of nuclear energy an important tool for meeting energy demands, ensuring energy security and tackling climate change, and seeks to develop nuclear power in an efficient manner under the safety-first principle. In 2012, the Chinese Government adopted the modified Medium-to-Long-Term Development Plan for Nuclear Power (2011-2020), which set out the target of 58 million kilowatts of installed capacity in operation and 30 million kilowatts of installed capacity under construction by 2020.

In the field of nuclear power, in 2013, the first unit of the Ningde nuclear power station and the first unit of the Hongyanhe nuclear power station started commercial operation. Construction began for the fifth and sixth units of the Yangjiang station and the fourth unit of the Tianwan station in the same year. Currently, there are 17 nuclear power units in commercial operation in the mainland of China, with a total installed capacity of 14.7 million kilowatts, and 31 units under construction with an installed capacity of 33.5 million kilowatts. China leads the world in terms of the capacity of nuclear power units under construction, which represents 44 per cent of the total capacity under construction around the world. China is the fastest-growing country in nuclear power generation.

With regard to the nuclear fuel cycle, China follows the closed cycle in nuclear fuel development and has largely developed a full-scale nuclear fuel cycling system. The supply of nuclear fuel in China can satisfy the demand of all the nuclear power



plants in operation. The fuel elements needed by domestic nuclear power plants are mostly produced in China. The pilot plant for reprocessing spent fuel built independently by China has passed the hot test and China has signed a letter of interest with France to work together on a commercial reprocessing plant. After building two near-surface disposal sites for low-and mid-activity radiological waste, China is in the process of choosing a site for the deep geological disposal of high activity radiological waste.

While developing safe and efficient nuclear power, China is working vigorously on basic nuclear research, research and development of advanced nuclear energy technologies, a greater percentage of home-made equipment, secure supply of nuclear fuel, treatment and disposal of radiological waste and training of nuclear professionals.

China has accumulated rich experience in nuclear energy development. It has set its eyes on cutting-edge technologies and focused on independent development. China has independently developed miniature neutron source reactors, small and medium-sized reactors, million-kilowatt pressurized water reactors and other types of nuclear reactors. It has also developed the technology for third-generation pressurized water reactors with outstanding performance in security and economic viability as well as the technology for high-temperature air-cooled reactors that have the characteristics of fourth-generation nuclear reactors. Both technologies can help developing countries in nuclear energy development. China has developed, built and run a pebble-bed helium-cooled high-temperature reactor (HTR-10) and started construction on a pilot project in Shidaowan. The experimental fast reactor has reached critical state and started feeding electricity to the grid in July 2011.

China is willing to share its experience with and provide all round support and assistance to countries engaged in nuclear energy development.

China pays great attention to its cooperation with the international community on the peaceful use of nuclear energy for the purposes of non-proliferation and has signed intergovernmental cooperation agreements with over 20 countries. It has also has carried out extensive exchanges and cooperation endeavours with these countries, including personnel exchanges, import of equipment and technology, and trade exchanges, which have all generated win-win results.

China attaches great importance to its cooperation with developing countries, and has done what it can to provide assistance to countries new to nuclear power generation and other countries interested in the peaceful use of nuclear energy. Such cooperation is conducted under strict safeguards by IAEA or as part of IAEA technical cooperation projects.

The Chinese Government actively supports multilateral cooperation and exchanges for promoting nuclear technology development and the peaceful use of nuclear energy. In March 1990, China joined the Forum of Nuclear Cooperation in Asia. In June 1992, it signed the Asia Nuclear Technology Cooperation Agreement. In November 2006, it signed the Charter of the Generation IV International Forum. In August 2007, it ratified the Joint Implementation Agreement on the International Thermonuclear Experimental Reactor, and in the same year, joined the Global Nuclear Energy Partnership. In March 2008, China acceded to the Framework Agreement for International Collaboration on Research and Development of Generation IV Nuclear Energy Systems. In October 2013, the China Atomic Energy

Authority signed with the Joint Declaration on Co-operation in the Field of Peaceful Uses of Nuclear Energy with the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development.

In 2013, China successfully hosted the international nuclear engineering conference, which is known as the Olympics in nuclear engineering, as its agenda covers almost all aspects of the topic. The 2013 conference attracted over 1,300 engineers and technical personnel from more than 30 countries. The participants gave advice and made suggestions for the future development of the field.

## **B. Technical assistance to other Member States through the International Atomic Energy Agency**

Under the framework of the IAEA statute, China has supported and actively participated in technical cooperation activities organized by the Agency. China contributes on time and in full to the IAEA Technical Cooperation Foundation every year. While receiving assistance from IAEA, China also provides manpower, material and financial support to IAEA technical cooperation activities.

By the end of 2013, China had voluntarily contributed US\$ 33.4 million to IAEA (China's technical cooperation contributions in 2014 will reach 3.43 million euros), provided 1,300 person-time expert services to other Member States, and played host to more than 1,400 technical personnel from other countries for training and scientific visits.

In April 2009, the Chinese Government and IAEA jointly held the International Ministerial Conference on Nuclear Energy in the Twenty-first Century in China, giving a boost to communication and cooperation in the international nuclear energy industry and contributing to the global development of nuclear energy.

In October 2011, China signed with IAEA a practical arrangement on cooperation in the field of safe nuclear plant construction, under which China's International Construction Training Centre on Nuclear Power, established by the China Nuclear Engineering Group, will undertake IAEA training activities in the field of nuclear power plant construction.

## **C. Nuclear safety and liability of civilian nuclear energy**

China follows the principle of "putting safety and quality first" in its development of nuclear energy and takes strict and effective safety measures in this regard. It has established fully fledged and effective legal, regulatory and emergency response systems for nuclear safety, and has been enhancing related infrastructure. To date, all of China's nuclear power units have maintained a good safety record, with the main performance indicators reaching world-class level.

China has established a legal system for nuclear safety, which it is constantly improving. China has enacted and implemented a series of laws and regulations in this regard, including the Law of the People's Republic of China on Radioactive Pollution Prevention and Control, the Law of the People's Republic of China on Environmental Protection, the Regulations of the People's Republic of China on

Monitoring and Management of Civil Nuclear Facility Safety, the Regulations of the People's Republic of China on Nuclear Material Control, and the Provisions on Design Safety of Nuclear Power Plant. Legislation on atomic energy and nuclear safety has been included in the national legislative agenda.

The Chinese Government attaches great importance to nuclear safety. Following the Fukushima nuclear accident, China took decisive measures to suspend construction of new nuclear power plants, and conducted a comprehensive safety examination of its plants. In that connection, it adopted the Plan on Promoting Nuclear Safety and Radioactive Pollution Prevention and Control during the Twelfth Five-Year Period and Long-term Goals 2020 and the Nuclear Power Safety Plan, and set out technical requirements to be universally observed in the generic improvement of nuclear power plants that are either in operation or under construction. In June 2012, China issued the General Technical Requirements for Nuclear Power Plants Improvement Following the Fukushima Accident (trial version), which, inter alia, set out clear technical requirements with regard to flood control capability, emergency water supply and related equipment, mobile power supply and configuration, spent fuel pool monitoring, hydrogen surveillance and control system, habitability and function of the emergency control centre, and external disaster response. Improvements have been made accordingly to all the nuclear power plants in China. All new nuclear power projects in China will be constructed in line with the highest safety standards in the world, and all new units have to meet third-generation safety standards.

China attaches importance to maintaining daily preparedness for nuclear emergencies. Since 2003, China has adopted the Regulations of the People's Republic of China on Nuclear Accident Emergency Response and Management, and the Provisions on Conducting Nuclear Accident Emergency Response Exercises in Nuclear Power Plants.

Following the Fukushima nuclear accident, China issued a revised Nuclear Emergency Plan in June 2013, and strengthened the structural arrangement for emergency response by developing a three-tier management model and setting up 10 nuclear-accident response teams.

Nuclear power plant operators in China make every effort to release information on the safety of their operations. In order to publicize the information in a more open and transparent manner and to make the public feel safer, the operators have improved their ways and means of communication, including press conferences, information release platforms, social responsibility reports, white papers on safe development, and open-house days. The operators attach greater importance than before to raising public awareness of nuclear power, and establishing a full-scale public education platform by utilizing new communication vehicles such as micro-blogs and WeChat (an online chat tool). They also take better consideration of local economic and social development in the areas where the nuclear power projects are located, so as to align nuclear power development with the development of the local community, thus creating a favourable social atmosphere for nuclear power development.

China conducted its first State-level nuclear-accident emergency response exercise in 2009.

China has been making consistent efforts to establish a compensation regime for nuclear damage. In 1986, the State Council of China issued the Reply by the State Council on the Nuclear Liability of the Third Party, explicitly holding the operator responsible for nuclear damage. In 2007, the State Council issued the Reply by the State Council on the Issue of Civil Liability for Nuclear Damage (known in short as State Correspondence No.64), raising the compensation limit of the operator to 300 million yuan, and that of the State to 800 million yuan. The Tort Liability Law, which has been in place since 2010, stipulates tort liability in the event of a nuclear accident in civil nuclear facilities. These measures fully demonstrate the people-oriented governance principle which the Chinese Government follows, and the Government's commitment to addressing liability for nuclear damage.

#### **D. Other related issues**

China attaches great importance to the peaceful use of nuclear technology in other related areas. It has carried out wide-ranging research on the application of technology in such areas as industrial detecting, industry engineering control, nuclear medicine and radioactive treatment, food and crops, animal production and health, food irradiation, resources evaluation, archaeological dating and pollution monitoring.

China pays great attention to spreading scientific knowledge about nuclear energy. The Chinese Government and businesses have worked actively to raise public awareness of nuclear safety, nuclear emergency policies, laws and regulations, and basic knowledge of nuclear science and technology, leading to increased public confidence in the safety of nuclear energy.

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