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President: Dato' Adnan OTHMAN (Malaysia)

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¹ GC(60)/20.

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Abbreviations used in this record:

AFRA African Regional Cooperative Agreement for Research,

Development and Training Related to Nuclear Science

and Technology

ARASIA Co-operative Agreement for Arab States in Asia for

Research, Development and Training Related to Nuclear

Science and Technology

ARCAL Co-operation Agreement for the Promotion of Nuclear

Science and Technology in Latin America and the

Caribbean

CBRN chemical, biological, radiological or nuclear

CNS Convention on Nuclear Safety

CPF Country Programme Framework

CPPNM Convention on the Physical Protection of Nuclear

Material

CSS Commission on Safety Standards

CTBT Comprehensive Nuclear-Test-Ban Treaty

DPRK Democratic People's Republic of Korea

EU European Union

E3/EU+3 France, Germany, the United Kingdom and the European

Union plus China, the Russian Federation and the United

States of America

EPREV Emergency Preparedness Review

FORO Ibero-American Forum of Radiological and Nuclear

Regulatory Agencies

GTRI Global Threat Reduction Initiative

HEU high enriched uranium

imPACT integrated missions of PACT

INIS International Nuclear Information System

INPRO International Project on Innovative Nuclear Reactors and

Fuel Cycles

INSARR Integrated Safety Assessment of Research Reactors

INSServ International Security Advisory Service

INSSP Integrated Nuclear Security Support Plan

INTERPOL International Criminal Police Organization

Abbreviations used in this record (continued):

IPPAS International Physical Protection Advisory Service

IRRS Integrated Regulatory Review Service

ITDB Incident and Trafficking Database

JCPOA Joint Comprehensive Plan of Action

Joint Convention Joint Convention on the Safety of Spent Fuel

Management and on the Safety of Radioactive Waste

Management

NPT Treaty on the Non-Proliferation of Nuclear Weapons

NSF Nuclear Security Fund

NSG Nuclear Suppliers Group

OSART Operational Safety Review Team

PAHO Pan American Health Organization

P5+1 the five permanent members of the United Nations

Security Council plus Germany

PUI Peaceful Uses Initiative

ReNuAL Renovation of the Nuclear Applications Laboratories

SDGs Sustainable Development Goals

SESAME Synchrotron-light for Experimental Science and

Applications in the Middle East

TC technical cooperation

TCF Technical Cooperation Fund

WHO World Health Organization

7 General debate and Annual Report for 2015 (continued)

(GC(60)/9 and additional information)

- 1. Ms DRÁBOVÁ (Czech Republic) said that the International Conference on Nuclear Security to be held in December 2016 was expected to attract an even greater level of interest than the preceding conference in 2013 and expressed hope that its wide-ranging objectives would be fulfilled. She also hoped that the Agency would reaffirm its central role in strengthening the nuclear security framework globally and in leading the coordination of international activities; its central role in the safeguards system could serve as a good example. Nuclear security considerations should not be limited to the nuclear material and facilities now covered by international legal instruments; radioactive sources used for example in hospitals or industry also needed to be protected.
- 2. Her country had participated actively in the Nuclear Security Summits organized in connection with the comprehensive nuclear policy presented by President Obama in Prague in 2009. Although the fourth and final Nuclear Security Summit had taken place in April 2016, it was important to continue to pursue the policy's objectives. As a terrorist attack with an improvised nuclear device would have a global impact, responses must also be global and all States had a common interest in establishing the highest levels of security and protection of nuclear material, facilities and radioactive sources.
- 3. As the Chair of the CSS, she had participated in the review of the Agency's safety standards in light of the Fukushima Daiichi nuclear accident. The achievements of the Commission, as outlined in the report for the fifth term, included the endorsement of 31 new safety standards, including revisions, for publication, and the amendment of five Safety Requirements. However, the safety standards should not be reviewed only on the basis of the lessons learned from the Fukushima accident, but also of other operating experience and information from advances in research and development. Attention should be focused on the implementation of Agency safety standards in Member States.
- 4. During talks with the Vice President of the Islamic Republic of Iran and Head of the Atomic Energy Organization of Iran during his visit to the Czech Republic in May 2016, her country had encouraged Iran to continue the implementation of the JCPOA. Cooperation in the area of the civil use of nuclear energy and nuclear safety had also been discussed, which could contribute to enhancing the transparency of the Iranian nuclear programme and strengthening mutual trust. It was important to support the JCPOA process, to which the Czech Republic had made a voluntary financial contribution.
- 5. The Czech Republic had also contributed voluntarily to the TC programme through the PUI and had continued to assist Armenia in upgrading its national nuclear regulatory infrastructure. Czech experts regularly participated in Agency missions, including for example the IRRS mission to Japan in January 2016.
- 6. The Czech Republic had six nuclear reactors generating about one third of its electricity. In accordance with the State Energy Policy, coal for electricity generation would gradually be substantially replaced with renewable and nuclear energy sources. The share of nuclear energy in the domestic energy mix was expected to reach approximately 50% within the coming 20 years, with nuclear reactors primarily replacing outdated coal-fired power plants. Many European countries, including the Czech Republic, currently faced uncertainty regarding a financing model for nuclear new build. Only new electricity production plants using renewable energy sources were subsidized in the European Union. To reinforce their energy security and support clear, stable and predictable revenue

for investors in low-carbon electricity generation, some governments provided guarantees to investors in new build by making up the potential difference between the agreed investment, including production costs, and the market price.

- 7. In the context of national regulation, a significant event in 2015 had been the identification of deficiencies in the secondary circuits at Dukovany nuclear power plant. Although the safety significance had been relatively negligible, a decision had been made to shut down the units until the situation had been remedied, despite the huge economic loss. The case illustrated that complacency could affect even the most highly rated nuclear power plants and highlighted the importance of monitoring subcontractors. A hasty conclusion might be drawn that the regulator's supervisory powers should be exercised more. However, given the impossibility of physically checking everything and everyone, the main lesson for both the operator and the regulator was that nuclear power plant safety issues must receive the attention warranted by their significance under all circumstances the safety culture must be continuously improved to create an environment that effectively prevented complacency.
- 8. After several years of intensive work, the updating of comprehensive nuclear legislation for the Czech Republic had been completed and a new Atomic Act, accompanied by a set of revised implementing regulations, would enter into force at the beginning of 2017.
- 9. Mr D'UJANGA (Uganda), having congratulated the Agency on its 60th anniversary, said that all stakeholders needed to make concerted efforts if the SDGs were to be achieved. He expressed appreciation for the Agency's contribution, in particular in the areas of water resources management, human health, industrial competitiveness, electricity generation, and food and agriculture, and noted that the 2016 Scientific Forum would highlight the pivotal role of nuclear technology in that regard.
- 10. Cancer continued to be a global challenge; in Uganda, the cancer incidence was about 300 new cases per 100 000 persons. In line with WHO recommendations, his country had launched a comprehensive national cancer control programme, focusing on cancer prevention through early detection and the provision of palliative care.
- 11. He thanked the Agency for the technical assistance provided in the form of human resource training and support in diagnosing and treating cancer. He commended the Agency's prompt response following the breakdown of Uganda's cobalt-60 teletherapy unit earlier in 2016; his Government would continue to work with the Agency to restore teletherapy services.
- 12. International and regional partnerships continued to play an important role in Uganda's development. He expressed appreciation to the Agency for its continued support for regional initiatives, in particular AFRA, which had provided a greater pool of human resources. He also thanked the AFRA member States for placing confidence in Uganda to host the 28th Technical Working Group Meeting and the National Liaison Officers meeting in Kampala.
- 13. All available options for electricity generation needed to be explored to realize universal access to affordable electricity by 2030. Uganda was continuing to assess the potential of its energy resources to ensure their sustainable exploitation. His country valued the Agency's contribution to energy planning, geothermal exploration and uranium exploration and evaluation, and would continue to develop those sectors. Recent studies on Uganda's energy sub-sector had shown that the potential for energy generation from local renewable sources using existing technologies was not sufficient to meet future energy needs. It would therefore continue to develop all available resources, including nuclear power, to meet those needs with a view to promoting industrialization and socioeconomic development and eradicating poverty.

- 14. Given that it took 10–15 years from the start of planning to commission a first nuclear power plant, the Ugandan Government had approved a five-year nuclear power infrastructure development project. He expressed thanks for the Agency's technical assistance to support pre-feasibility studies using the Milestones approach.
- 15. In light of the significant rise in the use of nuclear energy in Uganda, he reaffirmed his country's commitment to strengthening its national nuclear safety, security and safeguards infrastructure. The Agency's consistent technical support also served to strengthen the partnership between Uganda and the Agency.
- 16. Mr ARADSZKI (Hungary) said that the 60th General Conference provided a special occasion for Member States to acknowledge and appraise the tremendous work undertaken by the Agency in various fields of nuclear technology. Over several decades, the Agency had evolved into a proficient organization that provided thorough analysis on nuclear matters and supported programmes that improved living conditions and life expectancy in less developed regions of the world. The Agency had always actively protected the world from the dangers of uncontrolled atomic energy, while promoting the peaceful use of nuclear techniques. A founder member, Hungary had greatly benefited from its expertise and professional services. He reaffirmed his country's dedication to the Agency's mission.
- 17. Worldwide, nuclear energy was becoming an increasingly indispensable energy source, especially in the context of climate change. The adoption of the Paris Agreement in 2015 and the ongoing transformation of the energy sector into a low-carbon industry would place a higher value on nuclear energy as a clean and reliable technology for electricity generation.
- 18. Hungary had opted to maintain nuclear power in its energy mix in the long term. In accordance with its national energy strategy, it intended to maintain the existing nuclear capacity in order to guarantee the security of energy supply and ensure affordable and clean energy. The operation licence for Unit 3 of the Paks nuclear power plant would expire in December 2016 and the application for a twenty-year lifetime extension had already been submitted to the national regulatory authority. On the basis of the Hungarian-Russian intergovernmental agreement signed in 2014, Hungary was implementing the capacity maintenance project for the plant.
- 19. The highest standards of nuclear safety must be achieved at every stage of a country's nuclear power programme and the Agency's activities were essential in promoting nuclear safety throughout the world. Over the years, Hungary had greatly benefited from the Agency's nuclear safety services. A recent EPREV mission had proved that Hungary was generally well prepared for any nuclear emergency. The findings would help in improving the activities of the Hungarian Atomic Energy Authority and other competent authorities to further enhance the country's emergency preparedness and response system.
- 20. The risk of nuclear terrorism remained very real. Improving nuclear security was a constantly evolving responsibility as the threat changed, technologies shifted and new vulnerabilities were revealed. However, tangible developments had been made in 2016 with respect to the enhancement of the global nuclear security framework. The 2016 Nuclear Security Summit had resulted in new international commitments that would help decrease the global nuclear security risk over the coming years. Under the Nuclear Security Summit process, Hungary had implemented international provisions and recommendations at the national level, and participated in various programmes and activities at the international level. Hungary's high Nuclear Threat Initiative Nuclear Security Index ranking demonstrated its progress in that regard. On the margins of the Summit, Hungary had received the prestigious Atoms for Peace Award for removing HEU from its territory. His country also welcomed the entry into force of the 2005 Amendment to the CPPNM on 8 May 2016.

- 21. In recognition of Hungary's leadership in advancing nuclear forensics as part of a nuclear security infrastructure, the Agency had recently designated the Centre for Energy Research of the Hungarian Academy of Sciences as an official Collaborating Centre in nuclear forensics. His country looked forward to the inauguration of the Centre and to strengthened technical collaboration with the Agency.
- 22. International events over the past years, especially the implementation of the JCPOA with the Islamic Republic of Iran, had made the Agency's safeguards and verification activities increasingly relevant. Hungary highly valued the Agency's outstanding work in improving and modernizing safeguards technology and believed that it made a vital contribution to international peace and security. Hungary highly commended the Director General and the Agency for their valuable work in connection with verification and monitoring in Iran, which it supported by providing in-field training for safeguards inspectors. His country looked forward to further collaboration with the Agency on that crucial issue and continued to offer its skills and capabilities in the field of safeguards.
- 23. In 2016, Hungary had celebrated the 25th anniversary of its safeguards support programme, which demonstrated that Member States could effectively contribute to strengthening the international safeguards system.
- 24. The year 2016 also marked the 20th anniversary of the CTBT, which had however not been fully ratified. The DPRK's recent nuclear tests should serve as a serious reminder to the international community to make efforts to bring the Treaty into force. Hungary strongly condemned the actions of the DPRK, which were clear violations of United Nations Security Council and Agency General Conference resolutions, and called upon the DPRK to comply with its international obligations.
- 25. Hungary attached great importance to the Agency's TC activities and had made its facilities and experts in several fields available to the Agency in the framework of the TC programme for Europe for 2016–2017.
- 26. Hungary's professional involvement in the work of the Agency had led to a strong recognition of its nuclear expertise at the international level. His country placed a special emphasis on promoting equally high levels of nuclear safety globally, including in countries embarking on nuclear power programmes.
- 27. Mr BASU (India) congratulated the Agency on its 60th anniversary. Since its establishment, the Agency had made a commendable contribution to the peaceful uses of atomic energy for the benefit of humanity, which was a particular source of pride for India as a founding member. Dr Bhabha, the founder of India's atomic energy programme, had played a decisive role in the Agency's history, including in the decision to select Vienna as the location for the Agency's headquarters, and he thanked the Austrian Government for its commitment as host.
- 28. India had made a strategic decision to pursue a low-carbon growth model over the coming decades. In connection with the Paris Agreement, its intended nationally determined contribution would be ratified soon; accordingly, a comprehensive plan for the following 15–20 years was under preparation with a view to increasing the level of investment in nuclear power generation in India.
- 29. India's nuclear power plants continued to work at high capacity. The Kudankulam 2 plant had been connected to the grid in August 2016, and a further nine reactors were at various stages of construction. The total number of reactors in India was expected to pass 30 by the beginning of the following decade. A large number of pressurized light and heavy water reactors were also scheduled for construction. India would continue to work with the Russian Federation, the United States of America and France with a view to increasing its nuclear power capacity. Significant efforts were being made to finalize projects with due attention to cost, technology and safety.

- 30. In early 2016, India had ratified the Convention on Supplementary Compensation for Nuclear Damage and had launched both an operators' and a suppliers' policy for the India Nuclear Insurance Pool, in an effort to address all issues related to civil nuclear liability in India.
- 31. His country attached the utmost importance to strengthening all aspects of its nuclear safety measures. Its nuclear power plants continued to maintain a satisfactory safety record. Even when a coolant channel at Kakrapar Atomic Power Station had failed in early 2016, the safety systems had worked exactly as intended and no operators or members of the public had been exposed to radiation. The levels of occupational exposure and radioactive release from India's nuclear power plants remained well within the limits specified by the Indian Atomic Energy Regulatory Board. In addition, India had submitted its national report for peer review at the Seventh Review Meeting of the CNS, in which India would participate actively.
- 32. Several Indian fuel cycle facilities continued to increase their level of performance year after year. India had also taken steps to develop new mining sites to increase domestic uranium production levels; after initial teething problems, production at Tumallapalle mill in Andhra Pradesh state had been stabilized. A record level of pressurized heavy water reactor fuel had been produced at the Nuclear Fuel Complex in Hyderabad in 2015, and India's heavy water production plants were working at 115% capacity, as India sought to meet both its domestic requirements and export requests from partner countries. The reprocessing, waste management and fuel fabrication facilities included within its second stage power programme continued to perform well.
- 33. India's research reactors were also performing well. The Fast Breeder Test Reactor at Kalpakkam was operating at record levels, India had started to irradiate metallic fuel as part of its technological development programme for metallic fuel-based fast breeder reactors, and preheating activities prior to sodium loading were being carried out at the 500 MW(e) Prototype Fast Breeder Reactor. All commissioning activities were, moreover, subject to rigorous regulatory oversight. The Dhruva Research Reactor at Trombay, which produced medical isotopes, continued to operate at full power and had recently achieved a record capacity level. The Indus-1 and 2 synchrotron radiation sources at the Raja Ramanna Centre for Advanced Technology in Indore also continued to perform well and were open for use by all students and scientists in India.
- 34. Like the Agency, India was focusing on global cancer treatment. The Tata Memorial Centre continued to promote the development of radiotherapy equipment and to offer low-cost radiotherapy treatment to developing countries. In 2015, India had donated an Indian-designed Bhabhatron teletherapy machine to the Mongolian National Cancer Centre and, in July 2016, it had presented a Bhabhatron and a digital simulator to the United Republic of Tanzania. A Bhabhatron would also soon be installed in Kenya. In addition, at a side event held during the 60th General Conference, India had launched a smartphone application for staging gynaecological cancer, which had been developed by the Agency in collaboration with the Tata Memorial Centre.
- 35. The Agency was the appropriate global platform to discuss nuclear security issues. As part of its continuing contribution to the Agency's nuclear security work, India would donate US \$1 million to the NSF in 2016, having made a similar contribution in 2013. His country also looked forward to participating in the International Conference on Nuclear Security to be held in December 2016. Furthermore, as part of its commitment to global efforts to combat nuclear terrorism, India was to host a meeting of the Implementation and Assessment Group of the Global Initiative to Combat Nuclear Terrorism in New Delhi in February 2017.
- 36. In the face of growing energy demands and the need for sustainable, low-carbon energy generation, nuclear power was likely to remain an important component of many countries' future

growth strategies. In that context, India looked to the Agency to continue its leading role in fostering the safe, secure and sustainable use of nuclear energy over the decades to come.

- 37. Ms BOŽOVIĆ (Serbia) said that her country was committed to all of the Agency's fundamental principles and goals in furtherance of the safe and secure use of nuclear energy for peaceful purposes, in accordance with international instruments and practices. Serbia would also continue to support the Agency's efforts to enhance the effectiveness and efficiency of verification measures and to develop integrated safeguards, in accordance with the NPT.
- 38. Serbia had taken preparatory actions in connection with ratifying an additional protocol and had held three national seminars in connection with raising awareness of nuclear safety with Agency support in Belgrade in 2016, which had been attended by representatives of many government agencies. In connection with her country's efforts to meet Agency nuclear security requirements, the law on the ratification of the Amendment to the CPPNM had entered into force in March 2016, contributing to the global entry into force of that amendment. Ratification of the CNS and the Joint Convention was nearing completion.
- 39. As national regulations on nuclear security provided a legal basis for the development of design basis threat and physical protection systems and for drawing up long-term plans and goals, Serbia planned to adopt an INSSP, strengthen the implementation of the Code of Conduct on the Safety and Security of Radioactive Sources and enhance compliance with the Guidance on the Import and Export of Radioactive Sources.
- 40. Serbia's capacity building and infrastructure development activities on radiation protection and nuclear safety had been acknowledged by the Agency and supported by national and international projects, which had provided relevant expertise, advice and technical assistance.
- 41. Although the use of nuclear energy was controlled and covered by national legal instruments, Serbia was strongly committed to strengthening its national legal and regulatory framework in that area so that it would be more comprehensive and fully consistent with international safety standards and practices and with the EU *acquis*. It therefore endorsed the Secretariat's efforts to bolster international safety standards, recommendations and relevant international legal and political texts and recognized that technical assistance was an essential prerequisite for any progress.
- 42. Serbia highly appreciated the Agency's efforts in establishing new instruments of international cooperation in the field of nuclear and radiation safety and strongly supported the establishment of the European and Central Asian Safety Network and a Mediterranean network for strengthening the safety of the transport of radioactive material.
- 43. Mr SOW (Senegal) said that his country joined other Member States in celebrating the 60th anniversary of the Agency's establishment.
- 44. Senegal commended the Agency's endeavours to promote peaceful nuclear technology, nuclear safety and security, the application of safeguards, and the building of capacities to respond to radiological or nuclear emergencies. His country was committed to using peaceful applications of nuclear energy transparently, safely and sustainably. Having ratified most international conventions and agreements on nuclear safety and having acceded to the Code of Conduct on the Safety and Security of Radioactive Sources, Senegal could participate fully in strengthening international cooperation on transport control and in combating nuclear terrorism and trafficking in radioactive sources and nuclear material.
- 45. Senegal intended to participate actively in strengthening the international nuclear safety and security and non-proliferation regimes and had made the necessary arrangements to ratify the 2005 Amendment to the CPPNM and the additional protocol to its safeguards agreement. With the

assistance of the Office of Nuclear Security, it had adopted an INSSP in 2014 and was actively involved in various initiatives designed to strengthen nuclear security internationally, such as the GTRI, through which Senegal had acquired equipment to search for and secure orphan sources and had launched a plan to strengthen the physical protection of material at specific hospital sites.

- 46. Senegal's participation in various projects launched with its partners to mitigate chemical, biological, radiological and nuclear risks in the context of the European Union's CBRN Centres of Excellence, and its collaboration with the United States Nuclear Regulatory Commission and the VERTIC non-governmental organization demonstrated its will to work alongside the international community to develop a global response to all kinds of nuclear threats.
- 47. In 2011, Senegal had established its Radiation Protection and Nuclear Safety Authority, whose independence was assured by legal provisions and the supervisory role of the Prime Minister. It received Agency support regularly in the form of equipment and advice on the implementation of its projects and programmes. Senegal had updated and increased its participation in information exchange activities in the context of INIS, the Unified System for Information Exchange in Incidents and Emergencies and the ITDB. The National Centre for Scientific and Technical Documentation (CNDST) at the Ministry of Higher Education and Research had hosted the INIS national focal point since 2014 and promoted INIS activities at the national level. Its capacity to create and manage nuclear information systems had been boosted in 2015. The CNDST was developing a nuclear database that would eventually supply INIS with a full range of data.
- 48. Although responsibility for nuclear security lay with individual States, it was essential to promote far greater regional and international support for collective action and ongoing international cooperation.
- 49. Senegal welcomed the establishment of the AFRA Network for Education in Science and Technology (AFRA–NEST) to encourage national and regional cooperation in sustainable nuclear education through the development of networks such as the African Virtual University. Having created a countrywide virtual university in 2013, Senegal planned to establish an AFRA–NEST network and supported the distance education project through the Nuclear Energy Management School in South Africa.
- 50. Thanks to Agency support, Senegal's Applied Nuclear Technology Institute had mobilized the basic resources required to develop and implement a strategic action plan to provide its governing bodies with sustainable and relevant terms of reference and development indicators for peaceful applications of nuclear technology in applied research and technical education.
- 51. Senegal had subscribed to the aims of INPRO and actively participated in the International Framework for Nuclear Energy Cooperation and in the AFRA project on capacity building for energy planning. It had therefore included in the next cycle a training project on the establishment of a research reactor.
- 52. Senegal greatly appreciated the Agency's continuous support under the TC programme for the eradication of the tsetse fly from the Niayes region. The project had been awarded the prize for Best Sustainable Development Practices on Food Security at EXPO Milano 2015 and had been selected for its contribution to furthering sustainable development of small rural communities in marginal areas. Senegal's cooperation with the Agency covered most of the areas in which it had requested assistance, namely provision of inspection and monitoring equipment in the area of radiation protection and nuclear safety, and support for research on water resource management, energy planning, enhanced agricultural productivity, the development of stockbreeding and malnutrition control.

- 53. On the initiative of the President of Senegal, the Minister of Higher Education and Research was establishing a Platform for Technical Support for Research and Innovation in the City of Knowledge. The science and technology development hub would include a nuclear science and technology platform designed to develop their use in the areas of health, agriculture, food security, nuclear power and protection of the environment.
- 54. Senegal would spare no effort in developing its already excellent cooperation with the Agency through a proactive policy based on 'atoms for peace and sustainable development'. It reaffirmed its full commitment to the Agency's peace and security ideals through active participation in the promotion of nuclear energy for peaceful purposes and in strengthening the Agency's non-proliferation and verification regimes. It was unwaveringly committed to working with the international community to achieve world peace and stability.
- 55. Ms MEBARKI (Algeria) said that her country welcomed the addition of the word 'development' to the Agency's logo.
- 56. The 2016 Scientific Forum had highlighted the significant role of nuclear applications in such areas as health, food security, energy and the environment. Given the Agency's essential role in that regard, the TC programme should be strengthened through the provision of sufficient, assured and predictable resources. Algeria paid its financial contributions in full and on time and encouraged other Member States to do likewise.
- 57. Her country noted with satisfaction that the TC programme for 2016–2017 prioritized human health, agriculture, nuclear power, nuclear technology and nuclear safety, and encouraged the Agency in preparing its programme and budget for 2018–2019 to attach due importance to activities connected with the attainment of the SDGs and the implementation of various regional development agendas such as Agenda 2063 for Africa.
- 58. The Agency had played an important role in building capacity in Algeria in line with its CPF for 2012–2017. Under its national cancer control programme, her country had continued to develop new diagnostic methods in nuclear medicine. The integration of quality assurance programmes into medical services had been prioritized on the basis of the training of medical physicists. The recommendations from Phase II of the imPACT mission had been incorporated into an action plan on establishing all the new cancer control centres in the various regions.
- 59. Her country, which had launched the process for introducing nuclear power, had received considerable assistance in the areas of energy planning, site evaluation and technologies for nuclear power plant construction. It continued to benefit from Agency assistance in developing aspects of nuclear engineering and in promoting the localization of industry; a research and development unit for nuclear engineering had been set up.
- 60. With Agency support, Algeria had established a laboratory for the maintenance of semiconductor nuclear detectors which would begin operation at the beginning of 2017. It would become an AFRA designated regional centre for training fellows as part of a process to transfer nuclear instrumentation training from the Seibersdorf laboratories to competent institutions in Africa. The Algerian Nuclear Engineering Training Institute was running a long-term programme on training human resources capable of supporting the national nuclear power programme.
- 61. The rate of attainment of 92% in December 2015 for her country's CPF augured well for the preparation of the coming programme.
- 62. Algeria reaffirmed its commitment to the implementation of AFRA and requested support from the Agency and Africa's partners in meeting its objectives. Her country, which contributed to the AFRA fund, hoped to see the successful completion of the programmes under the CPF for 2014–2018.

It also renewed its commitment to making available its expertise and national infrastructure to assist with the socioeconomic development of Africa. In 2016, Algeria had also contributed, together with AFRA and the Agency, to organizing a significant number of regional courses and workshops.

- 63. The application of strengthened international nuclear safety and security arrangements and improving the effectiveness and efficiency of the verification regime should in no way erode or restrict the inalienable right of NPT States party to the uses of nuclear energy for peaceful purposes in accordance with Article IV of that Treaty and Article 2 of the Statute. At the national level, efforts aimed at strengthening the national safety infrastructure included the establishment of a complete operational system for the regulatory control of radiation sources and practices and a programme on training human resources in analysing the nuclear safety of facilities, with Agency support. Following an internal assessment, a plan of action had been implemented to strengthen the safety of Algeria's Nur and Es-Salam research reactors, with reference to recent safety standards and requirements. She also expressed appreciation for her country's cooperation with the Secretariat under the project on developing the regulatory radiation safety infrastructure.
- 64. Algeria welcomed the progress made in implementing the Nuclear Security Plan for 2014–2017, whose main priorities had been based on extensive consultation with Member States. It also welcomed the entry into force of the Amendment to the CPPNM on 8 May 2016. It had ratified that amendment as well as the International Convention for the Suppression of Acts of Nuclear Terrorism and related instruments, and reaffirmed the importance of universal accession to those. At the national level, preparations had been under way for several years on implementing the provisions of the CPPNM and the Amendment, including through the promulgation of a presidential decree on nuclear security provisions.
- 65. The Nuclear Security Training and Support Centre had been helpful in responding to nuclear security challenges and in improving national capacity while contributing to the International Network of Nuclear Security Training and Support Centres. All of her country's nuclear security activities were part of its preparations to implement the INSSP launched with the Agency.
- 66. Algeria noted the progress made in improving the effectiveness and efficiency of the safeguards system and urged the Agency to continue such work in strict accordance with its Statute. It supported the Agency's authority as an organization with a verification mandate and the universal application of its safeguards system for effective nuclear non-proliferation and disarmament. Legally, only agreements in force formally concluded with the Agency were enforceable for the Member States concerned and must be implemented in conjunction and in cooperation with the States. Like other Member States, Algeria had expressed concerns and misgivings about the application of the State-level concept. It was of prime importance that safeguards be implemented at the State level in conjunction with Member States in a transparent, effective and non-discriminatory manner. She expressed satisfaction with the cooperation and mutual trust between her country and the Agency in connection with the application of its comprehensive safeguards agreement.
- 67. Twenty years since the opening for signature of the Pelindaba Treaty on the establishment of a nuclear-weapon-free zone in Africa, Algeria, one of the first signatories, had spared no effort in promoting the ratification process by appealing to those States that had not yet done so to sign and ratify the Treaty and the protocols thereto. It had consequently welcomed the ratification of the Treaty and the establishment of the African Commission on Nuclear Energy.
- 68. Given that the only safeguard against the use or the threat of use of nuclear weapons was their total elimination and the attainment of a world free of nuclear weapons, Algeria had endorsed the Humanitarian Pledge on working towards nuclear disarmament.

- 69. Algeria welcomed the agreement concluded between the P5+1 and the Islamic Republic of Iran, as well as the accession of the State of Palestine to the NPT and its willingness to conclude a safeguards agreement with the Agency. Those positive developments were, however, overshadowed by the failure of the ninth NPT Review Conference where the stumbling block had been the issue of establishing a zone free of weapons of mass destruction in the Middle East. That failure in its turn was entirely attributable to the glaring failure of the international community to ensure that Israel joined the NPT. Accession to that Treaty by all the States in the region without exception and the placement of all their nuclear facilities under Agency verification were prerequisites for the establishment of a nuclear-weapon-free zone in the Middle East with the participation of all parties involved.
- 70. Mr KYRÖLÄINEN (Finland), having congratulated the Agency on its 60th anniversary, said that his country had been producing nuclear energy safely, reliably and efficiently for almost 40 years. The operation of the nuclear power plants, together with modernization, improvement and construction projects, had increased expertise throughout the industry. As it attached great importance to enhanced nuclear safety and had consistently supported action by the Agency to that end, Finland stressed that States using nuclear power or embarking on nuclear power programmes must enact sound legislation and regulations on nuclear and radiation safety.
- 71. Preparedness in case of a nuclear or radiological emergency was fundamental. The Fukushima Daiichi accident had drawn attention to the need to enhance regional and bilateral cooperation in such emergencies. Finland had an arrangement with the Nordic countries and with the Russian Federation, in line with Agency practices.
- 72. The construction and installation work for the Olkiluoto 3 nuclear power plant unit had been finalized and the project had entered the commissioning phase. Teollisuuden Voima Oyj had submitted an operating licence application for the plant in April 2016 and Fennovoima had submitted a construction licence application for the Hanhikivi 1 nuclear power plant unit in 2015; both were expected to be processed in 2018. Those new builds, together with the four nuclear power plant units currently in operation, and increased renewable energy, would contribute significantly to electricity production, to the achievement of emission reduction targets and to the Government's long-term goal of coal-free electricity production.
- 73. A nuclear waste management strategy should always be considered from the very beginning of the development of a nuclear power programme. Since the 59th General Conference, his Government had granted a construction licence for the ONKALO final underground spent-fuel repository designed to use highly advanced and mostly domestically developed technology and to meet strict safety, security and safeguards requirements. ONKALO was the first final disposal facility project in the world that had entered the construction phase. The encapsulation and final disposal process was scheduled to begin in the early 2020s.
- 74. The FinNuclear association had been founded to provide networks for companies to find partners and resources for their projects. It was to coordinate Finnish companies' general preconditions, cooperation and competences in the nuclear energy field. It covered the entire life cycle of nuclear power plants and associated plants from design to waste management and decommissioning, as well as modernization and research activities. It supported the safe use of nuclear energy by ensuring the availability of resources, services and equipment. It also offered education and guidance for the companies to develop their procedures to fulfil the nuclear industry's demanding requirements and needs.
- 75. As the proliferation threat continued to loom large, Finland called for the integrity of the non-proliferation regime and the NPT to be upheld, and for appropriate measures to be taken against non-compliance, while stressing the utmost importance of NPT universalization and full compliance.

- 76. Finland strongly condemned the nuclear test conducted by the DPRK on 9 September 2016, the latest in a series of grave violations of international obligations, which had become alarmingly common. The DPRK's nuclear test on 6 January 2016 and several subsequent missile launches were indefensible violations of international agreements and obligations and endangered regional stability. Finland urged the DPRK to comply fully with its international obligations, abandon its nuclear programme and commit to close cooperation with the international community, including the Agency.
- 77. Finland gave high priority to the security of nuclear material and facilities and stressed the importance of the International Convention for the Suppression of Acts of Nuclear Terrorism, also welcoming the entry into force of the Amendment to the CPPNM. It continued to provide financial and in-kind support for the Agency's nuclear security activities and was a long-standing contributor to the NSF, to which it was considering making an additional contribution for 2017.
- 78. Finland welcomed the ongoing implementation of the JCPOA agreed on between the E3/EU+3 and the Islamic Republic of Iran in July 2015, and looked forward to the swift implementation by Iran of all of its JCPOA commitments. Finland fully supported the Agency's monitoring and verification activities under the plan and recalled the importance of ensuring the necessary resources. Recognizing that the application of safeguards was one of the Agency's statutory functions, Finland welcomed the decision taken by the Board during its meetings in June on the gradual integration, from 2017–2019, of the inspector costs required for JCPOA implementation into the Regular Budget. That would ensure the predictability and sustainability of the Agency's work. Finland had thus far contributed €800 000 towards supporting Agency verification and monitoring under the Joint Plan of Action and the JCPOA and was considering making an additional financial contribution to support such activities in the future.
- 79. His country thanked the Agency for its work that contributed to international peace and security, and assured the Agency of Finland's continuous support for its valuable work in promoting the safe, secure and peaceful uses of nuclear science and technology.
- 80. Mr SABBAGH (Syrian Arab Republic) said that the 60th anniversary of the Agency's establishment provided an opportunity to highlight its increasingly important role in using nuclear science and technology to promote peace and development throughout the world. The Agency's role would also be enhanced through its assistance in the attainment of SDGs in the areas of health, energy, water, food, poverty eradication and climate change. In addition, the Agency bolstered international peace and security through its safeguards regime.
- 81. The Agency's achievements in a number of domains, particularly its implementation of the JCPOA with Iran, further highlighted its crucial role in safeguarding the right of Member States to use nuclear energy for peaceful purposes. Member States should therefore ensure that the Agency could continue to fulfil its statutory mandate in a fully independent, professional and impartial manner, and should prevent certain Member States from exerting pressure on the Agency in support of their narrow-minded political agendas, forcing it to deviate from its lofty goals.
- 82. One of the greatest challenges facing the Agency consisted in obtaining sufficient, assured and predictable resources to perform its functions, particularly in light of Member States' growing demand for assistance and services. Syria considered that Member States' provision of the financial resources required by the Agency for its diverse activities was an important indicator of their genuine support for the Agency's work.
- 83. As one of the first States to join the Agency, Syria was fully committed to cooperating with the Agency to promote further progress. Although the Annual Report for 2015 confirmed that there had been no diversion by Syria of declared nuclear material from peaceful purposes, the application of Syria's safeguards agreement was still regularly discussed by the Board. That agenda item was simply

a negative manifestation of certain States' exploitation of the Agency to implement their anti-Syrian political agendas. The Board had ignored the blatant Israeli assault on Syrian sovereignty in flagrant violation of international law and the Charter of the United Nations. It had adopted a resolution by vote in 2011 based on a hypothetical conclusion and a questionable inference in the absence of any hard evidence, despite the concerns of many Member States, which were anxious to promote continued dialogue between Syria and the Agency. He reiterated Syria's full commitment to cooperating with the Agency in resolving all outstanding issues relating to the Dair Alzour site and its readiness to implement the action plan agreed in Damascus between Syria and the Agency.

- 84. Since the implementation of the JCPOA agreed between the P5+1 and the Islamic Republic of Iran had begun in early 2016, the Director General's reports had confirmed Iran's compliance with its obligations under the Plan. Ongoing successful implementation depended not only on Iran but also on compliance by the other parties with their obligations.
- 85. The adoption by the General Conference of resolution GC(53)/RES/17 on Israeli nuclear capabilities had delivered a clear message from the international community, namely that Israel should accede to the NPT and place all its nuclear facilities under comprehensive Agency safeguards. The resolution had reflected many Member States' continuing concern about Israel's possession of nuclear capabilities that were not subject to international oversight, and about the associated threat to peace and security in the Middle East and the world, given Israel's ongoing aggressive behaviour in the region. Israel had persistently ignored the resolution, just as it ignored all other relevant resolutions adopted by international organizations and forums. It was regrettable that several influential Member States, including nuclear-weapon States, applied flagrant double standards, advocating the universality of the NPT, on the one hand, and disregarding that principle when it came to Israeli nuclear capabilities, on the other. To make matters worse, the States in question supported and assisted Israel in developing those capabilities, thereby violating their NPT obligations.
- 86. The time had come for the international community to set aside its policy of condoning Israeli practices and to take a clear decision and serious practical steps to compel Israel to accede to the NPT and to place all its nuclear facilities, unconditionally and unreservedly, under Agency safeguards. While all States in the Middle East had acceded to the NPT, including most recently the State of Palestine, Israel remained the only non-party to the NPT in the region. Palestine's accession and its desire to conclude a comprehensive safeguards agreement was an important development that should encourage action to create a zone free of all weapons of mass destruction, particularly nuclear weapons, in the Middle East. The failure of the 2015 NPT Review Conference was a source of great concern, since it had delivered a powerful blow to international efforts to free the Middle East region from nuclear weapons and other weapons of mass destruction. That setback should not, however, undermine the collective determination to proceed with action to achieve the NPT goal of a world free of nuclear weapons. Accordingly, the 1995 resolution on the Middle East must remain in force until its goals had been achieved.
- 87. Syria commended the role of the Agency's TC programme in promoting peaceful uses of nuclear energy in developing countries with a view to achieving the SDGs. Notwithstanding the difficult circumstances prevailing in Syria, it had succeeded, thanks to the tangible support of the Technical Cooperation Department, in implementing a considerable number of project components during the current year. It also hoped to implement the five national projects approved by the Agency for 2016-2017 in the areas of human health, water, food and industrial applications.
- 88. Syria continued to support the ARASIA Agreement and was actively involved in its programmes and activities. It also continued to host, manage and maintain the ARASIA website and hoped that the Agency would continue to support the Agreement on the strength of its major contribution to cooperation among the States parties and to their acquisition of nuclear technology.

- 89. The Syrian Arab Republic consistently endeavoured to pay its financial contributions to the Agency. However, the unilateral economic sanctions imposed on the country, particularly on bank transfers, had prevented it from paying its contributions for 2015 and 2016 in full. Nevertheless, it was working with the Agency to identify alternative payment procedures, motivated by its firm belief in the need to maintain the Agency's support and to enable it to play its important role.
- 90. He underscored the need to draw a clear distinction between the legal obligations of States party to the NPT and voluntary measures undertaken by Member States. In that connection, he called on Member States to remain vigilant vis-à-vis the attempts by some States to introduce measures that were not prescribed in the Statute, the NPT or safeguards agreements signed with the Agency. Such conduct undermined trust among Member States and generated misgivings concerning the intentions of the States concerned. The attempt to have measures that were implemented voluntarily by some Member States under specific national circumstances applied to all Member States was designed to promote a special agenda. Furthermore, it deflected the Agency's work from its proper course.
- 91. Mr NAEEM (Pakistan) said that the significant contribution of nuclear technology to the world's socioeconomic development was likely to increase in the following years, especially in helping to attain the SDGs. Nuclear power must also play its role in the energy mix of the future in a safe and beneficial manner. The increasing number of countries wishing to embark on nuclear power programmes required more guidance and support from the Agency. Over the years, Pakistan had benefited immensely from the expertise made available through the TC programme, expert missions, OSARTs and Assessment of Safety Significant Events Team missions. The OSART mission for his country's C-1 nuclear power plant had been carried out from 23 November to 10 December 2015. Pakistan had also provided the Agency with cost-free experts for small modular reactors and INPRO.
- 92. The Agency and the Pakistan Atomic Energy Commission had grown together over the preceding 60 years, and Pakistan remained committed to collaborating even more closely with the Agency to harness the vast potential of nuclear technology.
- 93. One of the greatest challenges faced by humanity was global warming and the associated climate change. As one of the ten most affected countries, Pakistan planned to substantially increase nuclear power's contribution to its energy mix. The TC programme could also be strengthened to promote the development and use of nuclear techniques in climate change analysis and mitigation.
- 94. Pakistan's first nuclear power plant, KANUPP, which had been connected to the grid in 1972, continued to function without vendor support and had recently attained a new record level for continuous operation. On the strength of KANUPP's safe and successful operation, Pakistan had been encouraged to pursue and advance nuclear power to address its severe electric power shortage. Under a long-term cooperation agreement, China had supplied two 325 MW(e) nuclear power plants at Chashma, units C-1 and C-2, which continued to operate successfully and economically. Units C-3 and C-4 were expected to be connected to the grid in the following months. Two 1100 MW(e) nuclear power plants, K-2 and K-3, were under construction and once they were commissioned, nuclear power would make a sizeable contribution to electricity generation in the country. Pakistan envisaged a nuclear power generation capacity of 40 000 MW(e) under its nuclear energy vision 2050.
- 95. All of Pakistan's civilian facilities were under Agency safeguards without exception, and his country was firmly committed to placing all future nuclear power plants, whether procured from outside or produced locally, under safeguards.
- 96. Confidence in the safety and security of nuclear and radiological material and associated facilities should facilitate international collaboration in such areas as health, industry and agriculture. As its nuclear power generation programme was expanding, Pakistan was also investing in the safety and security of its nuclear installations. The new plants being acquired for the Karachi site were

Generation III plants with enhanced safety features. Pakistan had already taken immediate and medium-term actions to reassess and upgrade the safety of its nuclear power plants under an action plan launched following the Fukushima accident.

- 97. Pakistan had ratified the Amendment to the CPPNM in 2016. His country thanked the Agency for organizing the 2016 annual meeting of the International Network for Nuclear Security Training and Support Centres in Pakistan. The first of its kind outside Agency Headquarters, the meeting had been held at the Pakistan Centre of Excellence for Nuclear Security, which had been established to conduct specialized training courses on a range of nuclear security-related matters. He also thanked the Agency for providing physical protection equipment to the Pakistan Institute of Engineering and Applied Sciences, which offered special courses on nuclear security and physical protection as part of its nuclear engineering curriculum, and was made available as a regional and international training hub.
- 98. Pakistan had consistently focused on developing a strong safety and regulatory infrastructure. The Pakistan Nuclear Regulatory Authority, established in 2001, was fully independent from the operators and its regulations were based on the Agency's safety standards. In collaboration with the Agency, it was providing assistance in the development of nuclear safety infrastructure to countries embarking on a nuclear power programme.
- 99. Besides nuclear power, the Pakistan Atomic Energy Commission had made important socioeconomic contributions by making the peaceful applications of nuclear technology available to the people. Some 80% of the country's cancer patients were treated annually in its hospitals and it planned to further expand its services to the public by establishing more nuclear medical centres. A sound infrastructure had been developed for addressing water resource management problems using isotope techniques. The agricultural research centres had produced 92 varieties of different crops.
- 100. In addition to the Pakistan Institute of Engineering and Applied Sciences, a network of in-house education and training institutions covered all major nuclear science and technology and nuclear power fields, such as the Karachi Institute of Power Engineering at KANUPP and CHASNUPP Centre of Nuclear Training at Chashma. Besides meeting national needs, those institutes welcomed participants from other Member States.
- 101. Pakistan appreciated the support provided by the Agency in the form of expert services, equipment, human resource development and assistance in the establishment and improvement of facilities in such areas as nuclear radiation, nuclear safety, nuclear security, the application of nuclear technology in agriculture, medicine, industry and nuclear energy. Many Agency dignitaries and officials had visited his country.
- 102. Over the years, Pakistan had streamlined and strengthened its export control regime and enhanced its engagement with multilateral export control regimes. It had strong credentials for becoming a member of the NSG and other multilateral export control regimes, if non-discriminatory and objective criteria were applied; that would benefit both the international community and his country.
- 103. Pakistan had benefited immensely from cooperation with the Agency and had made its own contributions to Agency activities by sharing its experience and providing expert services, particularly in the areas of energy planning, water management, nuclear site studies and the development of regulatory infrastructure; it hoped to contribute even more in the future.
- 104. Mr GRIMES (United Kingdom) said that his country's priorities for the year ahead were: to reaffirm its commitment to civil nuclear energy both nationally and internationally; to continue to support efforts to ensure the right conditions for nuclear energy and applications to flourish,

including robust safety, security, emergency preparedness and response regimes and ongoing support of the development and use of nuclear science and its applications; and to start the coming NPT review cycle positively, emphasizing his country's continuing commitment to strengthening the international non-proliferation architecture, including the safeguards regime.

- 105. Following a comprehensive review of the Hinkley Point C project, the United Kingdom had, subject to final agreement, decided to proceed with the country's first new nuclear power station for a generation. It recognized and continued to support nuclear power as an important part of the energy mix as a cost-effective and secure energy source that could help in meeting international obligations to reduce carbon emissions. The United Kingdom, with over 60 years' experience, remained ideally positioned and committed to providing support across the entire civil nuclear fuel cycle around the world. It continued to work through the Agency bilaterally and through other multilateral organizations to promote civil nuclear applications.
- 106. The lessons learned from the Fukushima Daiichi nuclear accident reinforced the need for robust regimes and his country was committed to the continued implementation of such regimes. The OSART mission to Sizewell B in October 2015 had allowed the United Kingdom to compare the facility's operational practices with best international practice. OSART missions provided a valuable opportunity to exchange technical and regulatory experience between experts and their station counterparts for the common goal of excellence in operational safety and the United Kingdom encouraged all Member States to host such missions. His Government had made the outcomes of the OSART mission publically available as transparency was important in ensuring public confidence in the country's ability to deliver safe civil nuclear energy. Activities at the international level included full participation in the CNS process to ensure that nuclear power plants fully complied with robust domestic and international safety standards.
- 107. Under the national emergency planning and response arrangements, the Government, nuclear industry, the regulator and local authorities were required to ensure that emergency planning at all levels was robust and fit for purpose, to ensure an integrated response in the event of an emergency between the nuclear site, local areas and national and international arrangements. His country continually reviewed its arrangements in the light of international developments and lessons learned.
- 108. The United Kingdom attached great importance to understanding and combating both current and emerging nuclear security threats. It strongly supported the Agency's central role in the international security architecture and looked forward to the International Conference on Nuclear Security: Commitments and Actions in December 2016, which it would support both financially and with relevant expertise. It was important that the Agency's nuclear security activities were adequately resourced. In March 2016, his country had made a further contribution of £7.1 million to the NSF and it encouraged other Member States to provide funds and expertise to support the Agency in the field of nuclear security.
- 109. The United Kingdom's continued significant role in ensuring nuclear security had been demonstrated at the Nuclear Security Summit in 2016. It had made a series of commitments, including the largest single movement of HEU to the United States of America, a process currently under way. It had also pledged to lead efforts to strengthen further the cybersecurity of nuclear power plants, had hosted a workshop to share best practices in September 2016, and would host a second in October 2016.
- 110. IPPAS missions remained an important means of sharing nuclear security best practices and his country, whose experts played a leading role in supporting such missions, looked forward to hosting the 20th anniversary seminar in London in November 2016.

- 111. With regard to strengthening capabilities to deal with material out of regulatory control, the United Kingdom had worked alongside the Agency to develop guidance on establishing nuclear forensics libraries and on developing guidance on disused source disposal. It had also worked both bilaterally and multilaterally to strengthen border security and in-country response, and welcomed the new INSServ missions and their expanded role.
- 112. The United Kingdom recognized the importance of developing skills relevant to the nuclear sector and commissioning state-of-the-art facilities. It continued to promote wider nuclear science and applications and encouraged a diverse and sustainable nuclear workforce. The National Nuclear Laboratory provided strategic technical advice to the Government and worked with the country's nuclear sector to drive innovative clean-up and decommissioning technologies, to perform vital post-irradiation examination to ensure safe reactor operations, and to undertake research on advanced nuclear technologies.
- 113. The Atomic Energy Authority, a world leader in fusion research and development, operated the Joint European Torus, contributing to the International Thermonuclear Experimental Reactor in many specialist areas, and undertaking fusion science and technology research centred on the Mega Amp Spherical Tokamak upgrade. It also contributed to the fission and other markets with facilities and research and development for irradiated materials, remote handling and tritium. The national laboratories were also supported by a strong university-based nuclear academic community. The Nuclear Decommissioning Authority had built up considerable decommissioning expertise and skills as a result of the country's nuclear legacy and had demonstrated unique solutions to tackling the high hazards at the Sellafield site. The Authority worked collaboratively with a number of international counterparts and remained committed to sharing its expertise and advances.
- 114. The United Kingdom recognized the vital role of the Agency in verifying compliance by States with their safeguards obligations and supported the continuous development of Agency safeguards to learn from experience and address new challenges. It called upon all non-nuclear-weapon States that had not yet done so to bring into force a comprehensive safeguards agreement and an additional protocol.
- 115. His country welcomed the progressive development of State-level safeguards approaches, which were consistent with existing safeguards agreements and would strengthen effectiveness and increase efficiency.
- 116. The United Kingdom recognized the Agency's role in support of the NPT and the vital role that the Agency would continue to play in supporting the goals of the Treaty.
- 117. The TC programme provided invaluable support for countries to use nuclear techniques in a safe and effective way, including in medical diagnosis and treatment and crop protection. The United Kingdom had very recently pledged over €3 million to the programme. The Agency's work to move to a results-based management approach was encouraging. TC projects should run effectively, be properly monitored across the project lifetime and evaluated fully, identifying lessons learned to be applied to future projects. Continuous, iterative improvements would ensure that the TC programme remained relevant and well supported.
- 118. The United Kingdom commended the Agency's particularly challenging work concerning the Islamic Republic of Iran, the Syrian Arab Republic and the DPRK. It welcomed the Director General's report that Iran was adhering to its nuclear-related commitments as outlined in the JCPOA, under which the United Kingdom was meeting its own obligations as a member of the Joint Commission. While Iran's full compliance and cooperation with the Agency was required, Member States could assist with continued financial support for the Agency's monitoring and verification activities.

- 119. In light of the Board's previous conclusion that Syria was in non-compliance with its safeguards agreement for failing to declare a nuclear programme at the Dair Alzour site and the three other locations alleged to be related to this site, the United Kingdom urged Syria to cooperate with the Agency to resolve all outstanding issues, including through concluding and implementing an additional protocol, as soon as possible.
- 120. Continued flagrant violations by the DPRK of its obligations under successive United Nations Security Council resolutions were of grave and growing concern and its fifth nuclear test on 9 September 2016 and numerous missile launches threatened regional peace and stability. It remained the only nation to have carried out nuclear weapons tests in the twenty-first century. The DPRK must resume compliance with its safeguards agreement and cooperation with the Agency and must abandon its existing nuclear programme in a complete, verifiable and irreversible manner.
- 121. In an era of widespread fiscal restraint, it was important that all Agency budgets were carefully managed and delivered efficiently to ensure that priority areas, including nuclear safety, safeguards and security, were properly resourced. Improvements should be sought continually to strengthen the delivery, professionalism and impact of the Agency's work. The United Kingdom welcomed efforts to improve the diversity of both the Secretariat and the civil nuclear workforce worldwide and called for efforts to be redoubled, especially in the area of gender diversity and for senior appointments.
- 122. Mr AZZOPARDI (Malta) said that the Agency's commitment to contribute to the attainment of the SDGs was a clear testament to the fact that, even after 60 years, its relevance as well as its preeminent role in the nuclear field remained undisputed.
- 123. Reaffirming its unwavering support for the NPT as the cornerstone of international non-proliferation, Malta unequivocally supported the universalization of the Treaty and invited States which were not yet parties to it to reassess their position and ratify it without further delay.
- 124. Owing to its position in the centre of the Mediterranean and its shared maritime borders with southern and eastern Mediterranean States, Malta closely followed the events in the region. It was regrettable that the conference on the establishment of a zone free of weapons of mass destruction and their delivery systems in the Middle East had not yet been convened. In spite of the lack of concrete progress, the goals of the 1995 Resolution on the Middle East remained valid. Furthering non-proliferation and disarmament efforts in the Middle East would be of great benefit and significance not only to the region itself, but also to the international community. Malta therefore called upon all States of the region to engage in constructive, positive dialogue to work towards achieving tangible progress.
- 125. The Agency played a vital role in ensuring, through effective multilateralism and its safeguards system, that nuclear technology was used exclusively for peaceful purposes. Comprehensive safeguards agreements and additional protocols were fundamental to the Agency's verification work. Malta supported the universalization of the Agency's verification standards and encouraged the relevant States to sign and bring into force the verification tools which served as confidence-building measures for the international community.
- 126. Malta welcomed the ongoing implementation of the historic JCPOA and encouraged the Islamic Republic of Iran to ratify and implement the additional protocol, as provided for. In conjunction with the complete and timely implementation of the road map, such action would bear witness to the potentially game-changing effects of multilateralism in the field of non-proliferation. Malta commended and fully supported the Agency's central role and work in the verification and monitoring of Iran's nuclear activities, in line with United Nations Security Council resolution 2231 and the JCPOA. It welcomed further cooperation between Iran and the Agency, which fostered not only better relations with Iran itself, but also a more stable and secure Middle East.

- 127. Malta unreservedly condemned the nuclear tests conducted by the DPRK in January and September 2016 and missile-related activities such as the ballistic missile launches in August and September 2016. The DPRK's actions were provocative, clearly violated its international obligations, aggravated tensions in the region and threatened international peace and security. Malta strongly urged the DPRK to abandon its nuclear weapons and ballistic programmes and to comply fully, unconditionally and without further delay with the relevant Security Council resolutions, including resolution 2270, and with General Conference resolutions, and to return to the non-proliferation regime and Agency safeguards immediately.
- 128. The non-compliance of the Syrian Arab Republic with its safeguards agreement also continued to be a cause for concern, especially as the Agency's verification capabilities in the country were negatively affected by the ongoing conflict. Malta called upon Syria to cooperate fully and promptly with the Agency to address all unresolved issues and bring into force an additional protocol without delay.
- 129. Malta strongly supported the central role of the Agency in the global nuclear security framework and looked forward to the International Conference on Nuclear Security in December 2016.
- 130. Nuclear safety and security should be extended to transport networks, in particular to maritime transport. As an island State and a leading maritime flag State, Malta had a special interest in ensuring that the highest safety standards, combined with adequate communication and cooperation, were also followed at sea as an incident there could be devastating, with a high risk of long-term contamination of the marine environment.
- 131. In line with commitments under the NPT, the humanitarian impact of nuclear weapons should not be forgotten. Malta had strongly supported the Conference on the Humanitarian Impact of Nuclear Weapons hosted by Austria in 2014 and the Humanitarian Pledge, reflecting the widespread support received from many Member States sharing humanitarian concerns.
- 132. Malta continued to attach importance to the TC programme as it had witnessed first-hand its tangible and important benefits, having participated at both a national and regional level. In 2015, Malta had implemented national projects involving radiation therapy for medical purposes and regulation and infrastructure at a technical level. It thanked the Agency for its assistance, cooperation and technical support, and looked forward to participating in future programmes.
- 133. Mr TOUKAN (Jordan) congratulated the Agency on its 60th anniversary and on its activities to promote peace, nuclear security and the global development of nuclear energy.
- 134. The Jordanian nuclear programme comprised three major projects: the gradual construction and operation of a nuclear power plant with two reactors; the establishment of the Jordan Research and Training Reactor; and the uranium prospection project in central Jordan.
- 135. The Jordan Nuclear Power Company had been established to manage the nuclear power plant in two phases, namely the pre-investment phase and the phase involving the signing of the Engineering Performance Contract (EPC) with the Russian Atomstroyexport company. The company was currently communicating with interested investors and international donors with a view to funding the project. The initial indicators were quite promising.
- 136. After the operating licence for the Jordan Research and Training Reactor had been issued by the Energy and Minerals Regulatory Commission, the hot commissioning phase had begun in April 2016, in accordance with international scientific rules and regulations. It was expected that the commissioning process would be completed by the end of 2016. The reactor would serve as a major attraction in the region for nuclear scientists.

- 137. The SESAME project, which was hosted by Jordan, would be completed and begin operating in mid-2017 in conjunction with the Jordan Research and Training Reactor. It would place Jordan on the regional and world map as a centre of excellence for scientific research and training opportunities in advanced synchrotron-light applications. Jordan would thus become a Middle East centre for photon and neutron science.
- 138. With regard to the Jordanian uranium exploitation project, the Jordanian Uranium Mining Company had issued its first report in 2014 and its second report in April 2016, which announced the discovery of 8100 tons of indicated resources and 31 200 tons of inferred resources, in accordance with the code of the Joint Ore Reserves Committee.
- 139. With regard to the extraction of crude uranium in central Jordan, a Jordanian team had recently succeeded in producing yellow cake of up to 90% purity in the laboratories of the Jordanian Atomic Energy Commission. It was planned to construct and operate a unit in central Jordan that would produce yellow cake and undertake detailed economic feasibility studies and studies of the technical and environmental requirements for the production of commercial quantities of yellow cake that could be used as fuel in nuclear power reactors.
- 140. The Energy and Minerals Regulatory Commission had issued a large number of regulations and directives concerning nuclear safety and security, safeguards, nuclear and radiological emergencies, and radiation protection.
- 141. The International Advisory Group on the Jordanian nuclear programme had published its first report in 2016, which had been submitted to the Jordanian Government and the public, and indicated that the programme was in full compliance with international agreements and conventions and aimed to secure support for the development of nuclear infrastructure in legal, regulatory and human terms.
- 142. A recent survey had also found that the rate of acceptance of the programme among opinion makers was 71%, and 72% among the general public.
- 143. Jordan attached great importance to nuclear security. His Majesty King Abdullah II had participated in all Nuclear Security Summits since 2010 and had launched an initiative aimed at combating trafficking in nuclear material at the Summits held in Seoul in 2012, The Hague in 2014 and Washington in 2016. The initiative had won the support of 37 States, the United Nations and INTERPOL.
- 144. Jordan welcomed the entry into force of the Amendment to the CPPNM and commended the Agency's encouragement of States parties to find ways of improving the information exchange mechanism, while protecting confidentiality. Jordan looked forward to participating in the International Conference on Nuclear Security to be held in December 2016.
- 145. The Government of Jordan had adopted a national nuclear safety policy, which the Energy and Minerals Regulatory Commission had supported by drafting a comprehensive law on nuclear energy containing all regulatory requirements for the licensing of nuclear facilities.
- 146. Jordan welcomed efforts to establish a worldwide liability regime to supplement the Convention on Supplementary Compensation for Nuclear Damage. It was taking steps to ratify the Convention, especially since it had already ratified the Vienna Convention on Civil Liability for Nuclear Damage and the Protocol amending that Convention.
- 147. Jordan appreciated the Agency's support under the TC programme for the implementation of national, regional and interregional projects, and nuclear applications in the areas of medicine, agriculture and water management.

- 148. Jordan also appreciated the support provided by ARASIA for cooperation among Arab Member States in important areas relating to nuclear science and technology for peaceful purposes.
- 149. Jordan set great store by the safeguards regime, which had crucially supported international action to prevent the proliferation of nuclear weapons and to confine nuclear energy to peaceful applications. It called on all States in the Middle East, including Israel, to accede to the NPT and place all of their nuclear installations under Agency safeguards, thus ensuring the universality of the Treaty in the region and paving the way for the establishment of a nuclear-weapon-free zone in the Middle East in furtherance of international peace and security.
- 150. Mr FARAONE MACHADO (Uruguay) said that his country stood for the inalienable right of States to the peaceful use of nuclear energy within the cooperation framework established within the Agency and pursuant to safeguards enshrined in the Statute. International standards and national regulations together established that right and reflected the pivotal character of the Agency as the authority identified by the community of nations.
- 151. He reaffirmed Uruguay's unwavering commitment to universal and full disarmament within the multilateral framework. Uruguay had always supported all forms of disarmament in relation to conventional weapons and weapons of mass destruction chemical, biological and, above all, nuclear weapons.
- 152. As a non-nuclear State and Member of the first nuclear-weapon-free zone established under the Treaty of Tlatelolco and as an NPT State party, Uruguay was strongly committed to strengthening the disarmament and non-proliferation regime and thus advocated the establishment of such zones worldwide. Uruguay encouraged all Member States to comply fully with their arms control, disarmament and non-proliferation obligations as a way of contributing to international peace and security. It strongly condemned the nuclear testing and missile launches carried out by the DPRK in 2016 in clear violation of five United Nations Security Council resolutions and the non-proliferation regime.
- 153. The Agency's safeguards regime should be strengthened further to address proliferation risks and achieve progress on the disarmament front. Uruguay, which had ratified the additional protocol, was committed to preventing nuclear material from falling into the hands of terrorists. Uruguay honoured its commitment to nuclear safeguards and verification processes and stressed that multilateral dialogue and negotiations were the appropriate means of resolving international tensions in those areas.
- 154. On those fundamental bases, Uruguay continued to participate actively in the IAEA, having joined the Board of Governors for the 2015–2017 term.
- 155. As identified by the Agency, improvement of nuclear safety was the most important factor in contingency plans of States, which must require that operators hold the highest qualifications and skills and ensure that material and facilities were protected, safe and secure. The Agency played a pivotal role in strengthening the nuclear safety framework worldwide and in boosting international cooperation geared to the fulfilment of State responsibility in that regard. It also highlighted the Agency's achievements under the Action Plan on Nuclear Safety.
- 156. Uruguay applauded the Agency's work in the field of nuclear security and welcomed the progress in the application of relevant legal instruments, and the entry into force of the Amendment to the CPPNM an important step towards strengthening nuclear security.
- 157. Uruguay faithfully applied international agreements and ascribed the utmost importance to radiation protection and safety. The Government of Uruguay had therefore established an independent regulatory authority to monitor all types of equipment using ionizing radiation. It had adopted a

national strategy for safe radioactive waste management and was in the process of revising its national radiological emergency plan. Uruguay supported the Agency's holding of workshops on radiation protection in medicine.

- 158. Uruguay drew attention to FORO activities designed to maintain the highest level of radiological and nuclear safety and security in the Ibero–American region. Uruguay supported FORO and urged both it and the Agency to work with other organizations that shared their objectives, such as PAHO and WHO, to disseminate information about its work in the fields of radiation and nuclear security.
- 159. Uruguay recognized the importance of the Agency's transfer of technology under its TC programme in the form of equipment, expertise and training and its assistance to Member States in key areas such as regulatory infrastructure, nuclear security and radioactive waste management. For its part, Uruguay participated in many national and regional TC projects and had benefited greatly from implementing the Agency's new recommendations for regulating activities involving radiation and from hosting expert missions and Agency events.
- 160. Uruguay acknowledged the invaluable contribution that nuclear applications could make to various areas of development in all countries, including health and agriculture, thus improving citizens' well-being. Ionizing radiation was used in Uruguay for medical diagnosis and therapy, in particular in oncological pathologies and X rays. In 2010, a Molecular Imagery Centre had been installed for computer-aided tomography and positron emission tomography, as had a cutting-edge linear accelerator in late 2013 for radiotherapy and a secondary standards dosimetry laboratory, which could provide services nationally and regionally. Uruguay was interested in monitoring foreign radioactive emissions and other emissions and hoped to expand its real-time environmental monitoring system to cover the entire country with the Agency's support.
- 161. Uruguay stressed the importance of ARCAL as a key instrument for regional cooperation and projects. Uruguay had implemented various TC agreements under ARCAL, which was committed to implementing regional or subregional projects in the fields of nuclear medicine, especially as regarded cancer treatment, the determination of chemical agents in agricultural food for domestic consumption and export, and efficiency gains in the milk production sector.
- 162. The meeting of the ARCAL Technical Co-ordination Board in April 2016 had chosen and prioritized ten concepts in the areas of human health, food security, energy, the environment and radiation technology. Uruguay had adhered to eight of those concepts.
- 163. Uruguay believed that the promotion of trilateral cooperation agreements for regional projects would contribute to stronger strategic alliances with multiplier beneficial effects. Making digital platforms available to States and assisting them in the development of new national programme frameworks would help to improve the efficiency and effectiveness of the TC programme.
- 164. In view of the needs facing Latin America and Caribbean countries with regard to food security and agriculture, human health, the environment, energy, radiation technology and radiation security, and given the inadequacy of the designated funds, Uruguay believed that the TCF should not depend on voluntary contributions, as its resources needed to be sufficient, assured and predictable in order to ensure that its goals were attained.
- 165. Stressing that measures to strengthen nuclear security should not hamper international cooperation, Uruguay believed that the Agency's increased activities in the field of nuclear security should be funded primarily through the NSF, given the constraints on the Agency's Regular Budget, thus preserving the balance between the promotional and non-promotional activities of the Agency.

- 166. Uruguay's steady and unprecedented growth in recent years had required ever more energy to meet the needs of its industrial, transportation and housing sectors. Following the adoption of its first long-term energy policy in 2008, the transformation of the domestic energy market had prompted a significant shift towards non-traditional renewable energy sources, without any subsidies, greatly bolstering national energy sovereignty in the process. Uruguay was able to generate energy from hydraulic, wind, solar and biomass energy resources, surpassing one of its key goals for 2015 for renewable energy to account for half of its overall energy mix. By 2030, Uruguay hoped to be a model of a green economy.
- 167. Mr BAPTISTA MOITINHO DE ALMEIDA (Portugal) said that on the strength of the Director General's skilled and impartial guidance of the Agency over the preceding seven years, his country supported his appointment for a third term.
- 168. The objectives of the Agency when it had been founded 60 years previously remained just as relevant and challenging today, and it was crucial for Member States to remain steadfast in their support for the fulfilment of the Organization's mandate.
- 169. Highlighting the Agency's unique responsibilities in the domains of non-proliferation, nuclear energy, safety and security, he said that the NPT remained the cornerstone of the nuclear non-proliferation regime and of the framework for the peaceful uses of nuclear energy, in accordance with Article IV. Portugal therefore appealed to all States that had not yet done so to adhere to the NPT as non-nuclear-weapon States.
- 170. The recent nuclear test carried out by the DPRK was a deeply troubling development that his country vehemently condemned. That new provocation, in direct violation of multiple United Nations Security Council resolutions, posed a grave threat to regional and global peace and security and underscored yet again the urgency of achieving the complete, verifiable and irreversible denuclearization of the Korean Peninsula. The Agency's role, once an agreement had been reached, would be crucial.
- 171. In relation to the implementation of the safeguards agreement with the Syrian Arab Republic, Portugal regretted the continued non-compliance and absence of progress, and echoed the Director General's request to the Syrian authorities for full cooperation with the Agency in connection with all unresolved issues.
- 172. Portugal fully supported the Agency's role in the implementation of the plan concluded in July 2015 with the Islamic Republic of Iran. The Agency's activities were crucial to the long-term verification regime established in the JCPOA, which was vital to ensuring confidence and mutual trust. The JCPOA demonstrated that complex non-proliferation challenges could be solved through commitment to a diplomatic solution, underpinned by the Agency's verification capacities.
- 173. Portugal welcomed the applications for Agency membership by Saint Lucia, Saint Vincent and the Grenadines and the Islamic Republic of Gambia, and would continue to advocate the benefits of the Agency's programmes in fields such as agriculture, public health and the fight against cancer, with a view to encouraging further applications for membership.
- 174. Portugal was thankful for the Agency's assistance under the TC programme in the reorganization of its legal nuclear framework and for the participation of Portuguese institutes in Agency projects and of Portuguese experts in training courses. His country was also grateful for the technical support in relation to the Portuguese Research Reactor, and for the possibility of installing a cyclotron in the Greater Lisbon area.
- 175. Portugal looked forward to the meeting of the European National Liaison Officers, to be held in Lisbon. In addition to being a beneficiary of technical cooperation, Portugal had organized training

programmes for Portuguese-speaking countries and, through the Regional Government of Madeira, had donated equipment to Morocco and Brazil.

- 176. As requested by the Portuguese Regulatory Commission for the Safety of Nuclear Installations in 2015, in February 2016, the Portuguese Research Reactor had undergone a safety review within the framework of an INSARR. Portugal welcomed the international panel's resulting recommendations.
- 177. The Dialogue between Coastal and Shipping States had yielded positive developments throughout its implementation. Portugal commended the success of the Japanese chairmanship of the Dialogue, which had enhanced mutual understanding, information sharing and practical arrangements for the transport of radioactive material. Portugal, which would take over the chairmanship at the end of September 2016, thanked the Agency for its support in the preparation of a tabletop exercise on the transportation of nuclear waste, to be held in 2017.
- 178. Given the fundamental assistance provided to Member States by the Seibersdorf laboratories, Portugal was also paying close attention to ReNuAL. It was also an active supporter of the activities of the Incident and Emergency Centre and had provided national experts for an EPREV mission during 2016.
- 179. In July 2015, Portugal and Spain had signed a technical cooperation protocol on nuclear and radiological emergencies and environmental radiological protection, involving the Portuguese Environment Agency, the University of Lisbon and the Nuclear Safety Council of Spain and aimed at enhancing bilateral cooperation.
- 180. The TC programme, which was a crucial aspect of the Agency's mandate, remained instrumental to the success of the 2030 Agenda for Sustainable Development. Portugal shared the view that all Member States should have access to the TCF, in accordance with the Statute.

The meeting rose at 1.10 p.m.