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Nuclear Security Report 2018

Report by the Director General

Summary

This report has been produced for the sixty-second regular session (2018) of the General Conference in response to resolution GC(61)/RES/9, in which the General Conference requested that the Director General submit an annual report on activities undertaken by the Agency in the area of nuclear security, and on external users of the Incident and Trafficking Database (ITDB) and on past and planned activities of educational, training and collaborative networks, as well as highlighting significant accomplishments of the previous year within the framework of the Nuclear Security Plan and indicating programmatic goals and priorities for the year to come. This report covers the period 1 July 2017–30 June 2018.

Recommended Action

It is recommended that the Board of Governors take note of the Nuclear Security Report 2018.

Nuclear Security Report 2018

Report by the Director General

A. Introduction

1. This report has been produced for the sixty-second regular session of the General Conference in response to resolution GC(61)/RES/9. In operative paragraph 43 of that resolution, the General Conference requested the Director General to submit an annual report to the General Conference on activities undertaken by the Agency in the area of nuclear security, and on external users of the Incident and Trafficking Database (ITDB) and on past and planned activities of educational, training and collaborative networks, as well as highlighting significant accomplishments of the previous year within the framework of the Nuclear Security Plan and indicating programmatic goals. This report covers the period 1 July 2017–30 June 2018.

2. Responsibility for nuclear security rests entirely within a State. The Agency continued to provide assistance, upon request, to States in their national efforts to establish and maintain effective and sustainable nuclear security regimes. During the reporting period, the Agency continued to implement activities under the Nuclear Security Plan 2014–2017, approved by the Board of Governors in September 2013, and began to implement activities under the Nuclear Security Plan 2018–2021. At its September meeting, the Board of Governors approved the *Nuclear Security Plan 2018–2021*, which provides details of proposed Agency nuclear security activities for the period 2018–2021, and this Plan was taken note of by the 61st General Conference in September 2017. All activities were undertaken with due regard to the protection of confidential information.

B. Major achievements

B.1. Information Management

3. Agency work in this sub-programme is carried out under three projects: assessing nuclear security needs and priorities; information sharing; and information and computer security and information technology services.

B.1.1. Assessing nuclear security needs and priorities

Integrated Nuclear Security Support Plans

4. The Agency continues to give high priority to the development and implementation of Integrated Nuclear Security Support Plans (INSSPs) to assist States, upon request, in applying a systematic and

comprehensive approach to enhancing their nuclear security regimes. The development and implementation of INSSPs also enables increased coordination between the Agency, the State concerned and potential donors to ensure appropriate allocation of resources and to avoid duplication of efforts.

5. An INSSP template is used as the basic framework for INSSPs. In response to Member State requests and in order to ensure that this template remains current, the Secretariat reviewed and updated the template, which began to be used in April 2017. All INSSPs will be developed using the new template as part of the normal INSSP review and finalization cycle. During this reporting period, translation of the template into all United Nations official languages was completed.

6. Two Member States formally approved their INSSPs, bringing the number of approved INSSPs to 79. As of 30 June 2018, 19 INSSPs were awaiting Member State acceptance and 3 INSSPs were awaiting finalization with the respective Member States. The Agency held 23 INSSP review meetings and three INSSP finalization meetings.

7. The Agency held one regional coordination meeting for Latin America in Montevideo, Uruguay, in October 2017 and one international meeting in Vienna, Austria, in April 2018 for States embarking on nuclear power programmes to enhance cooperation with States in developing and implementing their country-specific INSSPs, to enhance coordination between States with similar needs and priorities and to explore regional solutions. In addition, a National Workshop for Senior Officials was held in Vienna, Austria, in October 2017 for Bosnia and Herzegovina. A Technical Meeting of the Points of Contact for INSSPs was held in Vienna, Austria, in October 2017.

Nuclear Security Information Management System

8. The Agency continued to maintain and update the Nuclear Security Information Management System (NUSIMS), a web-based platform for States to perform nuclear security self-assessments on a voluntary basis. During the reporting period, two Member States nominated points of contact for NUSIMS, bringing the total number to 97. NUSIMS questionnaires were systematically used in INSSP finalization and review meetings. The Agency conducted INSSP meetings in Africa, Latin America, Europe and Asia using NUSIMS as a tool to frame discussions. These meetings also aimed to increase awareness of NUSIMS and to facilitate its use by Member States.

B.1.2. Information Sharing

Incident and Trafficking Database

9. In the period between the inception of the ITDB and 30 June 2018, States had reported — or otherwise confirmed to the ITDB — a total of 3374 incidents. Reports of 235 incidents were added to the database in the reporting period. Of these incidents, 127 occurred between 1 July 2017 and 30 June 2018. While the Agency does not verify States' reports, the number of incidents voluntarily reported by participating States to the ITDB demonstrates that illicit trafficking, thefts, losses and other unauthorized activities and events involving nuclear and other radioactive material continue to occur.

10. Of the 235 newly reported incidents, 3 were related to trafficking and 4 were scams. All of the material involved in these incidents was seized by the relevant competent authorities within the reporting State. No incident involved high enriched uranium, plutonium or category 1 sources.

11. There were 33 reported incidents in which the intent to conduct trafficking or malicious use could not be determined. These included 17 thefts, 4 unauthorized possessions and 12 incidents of missing materials. In 25 incidents the materials were not recovered including 1 incident involving category 3 radioactive sources, while the remainder involved lower-risk sources below category 3.

12. There were also 125 reported incidents in which the material was out of regulatory control but not related to trafficking, malicious use or scams. Most of these incidents involved unauthorized disposal, unauthorized shipments and unexpected discoveries of material such as previously lost radioactive sources.

13. External users of the ITDB include the United Nations, the United Nations Office for Disarmament Affairs, the United Nations Office on Drugs and Crime, the United Nations Economic Commission for Europe, the International Civil Aviation Organization, the International Maritime Organization, the International Rail Transport Committee, the International Criminal Police Organization (INTERPOL), the Organisation for Co-operation between Railways, the Universal Postal Union, the World Customs Organization, the Police Community of the Americas, the European Commission (EC)—including the Institute for Transuranium Elements of the EC Joint Research Centre, the European Atomic Energy Community, the European Police Office (Europol), and the Organization for Security and Co-operation in Europe. As stated in the ITDB Terms of Reference, these external users receive only “unrestricted information” reported in Part I (and not in Part II) of the ITDB incident notification form.

14. During the reporting period, information was provided to States on incident notifications and membership in the ITDB during the following international and regional workshops and training courses:

- International Training Course of New and Prospective Points of Contact for the ITDB, Vienna, Austria (July 2017);
- Regional meeting for States in the Southeast Europe, Tirana, Albania (August 2017);
- Regional meeting for Central European States, Bern, Switzerland (October 2017);
- Regional meeting for Central American and the Caribbean, Mexico City, Mexico (November 2017).

15. The triennial Technical Meeting of States’ Points of Contact for the ITDB was held in Vienna, Austria, in May 2018. During this meeting, an effort to update the ITDB terms of reference was initiated to bring them in line with previously agreed ITDB conceptual framework trafficking definitions.

16. During the reporting period, the ITDB programme also provided quarterly analytical summary reports, a biennial analysis report for the period 2015–2016, an annual fact sheet summarizing ITDB incidents for public information and, in response to requests from Member States, additional information services in support of two major public events. Further details of the events are set out elsewhere in this report.

17. The ITDB programme also provided analytical support in the development and implementation of INSSPs for 16 Member States.

18. A new on-line system for reporting incidents and a new on-line tool for searching the ITDB database were introduced to improve and simplify reporting and to enhance the ability of Points of Contacts and other authorized users to conduct their own searches and analyses.

Nuclear Security Information Portal

19. The Agency continued to maintain and improve the Nuclear Security Information Portal (NUSEC) to provide a comprehensive information tool to meet the needs of Member States and to exchange information across the nuclear security community. The web-based NUSEC has more than 4800 registered users from 165 Member States and 17 organizations. An approximately 18 per cent increase in registered users in the past year improves the Agency’s capability to reach the wider

international security community with information on developments in nuclear security. Improvements made to NUSEC in the reporting period include continued support for the International Physical Protection Advisory Service (IPPAS) Good Practice Database, further enhancements to the International Network for Nuclear Security Training and Support Centres (NSSC Network) database, and enhancements to the common calendar that provides information on all training courses and other events hosted by NSSC Network members. In addition, a new User Group focused on Science and Technology for Nuclear Security facilitates communication among Member States on this topic.

B.1.3. Information and Computer Security, and information technology services

Guidance development

20. Member States have encouraged the Agency to continue its efforts to strengthen computer security. In response, the Agency continued development of computer security guidance within the IAEA Nuclear Security Series. During the reporting period, the Nuclear Security Series Technical Guidance *Computer Security of Instrumentation and Control Systems at Nuclear Facilities* was published as IAEA Nuclear Security Series No. 33-T. In addition, the Nuclear Security Guidance Committee (NSGC) approved two documents for publication: an Implementing Guide provisionally entitled *Computer Security for Nuclear Facilities* and a Technical Guidance provisionally entitled *Computer Security Techniques for Nuclear Facilities*.

Assistance provided to States

21. The Agency developed a new course on the Protection of Computer-based Systems in Nuclear Security Regimes, and a pilot for this course was held as a national workshop in Idaho Falls, United States of America, in March 2018.

22. The Agency convened five regional training courses and workshops related to computer security during the reporting period:

- Regional training course for Asia and the Pacific on the development of national training in advanced topics in computer security in Hanoi, Viet Nam (July 2017);
- Regional training course for Asia and the Pacific on advanced topics in information and computer security for nuclear security regimes in Almaty, Kazakhstan (October 2017);
- Regional training course for Europe on conducting computer security assessments at nuclear and other radioactive material facilities in Helsinki, Finland (September 2017);
- Regional workshop for Asia and the Pacific on conducting computer security assessments at nuclear and other radioactive material facilities in Bangkok, Thailand (March 2018);
- Regional training course for Africa on information and computer security awareness for nuclear security regimes in Rabat, Morocco (September 2017).

A national training course was also convened in Islamabad, Pakistan, in January 2018, as were national workshops in Warsaw, Poland, in April 2018 and in Beijing, China, in November 2017.

23. The Agency also convened a Technical Meeting on reducing cyber risks in the nuclear industry supply chain in Vienna, Austria, in June 2018. More than 100 participants from 35 Member States attended. Two expert meetings were conducted in Vienna, Austria, in August 2017 and February 2018 to promote information exchange and share lessons learned on computer security in the supply chain.

B.2. Nuclear Security of Materials and Associated Facilities

24. Agency work in this sub-programme is carried out under four projects corresponding to four areas of expertise relevant to nuclear security of nuclear and other radioactive materials and associated facilities and activities: nuclear security approaches for the whole nuclear fuel cycle; enhancing nuclear material security using accounting and control; upgrading security of radioactive material and associated facilities; and nuclear security in transportation of nuclear and other radioactive material.

B.2.1. Nuclear security approaches for the whole nuclear fuel cycle

Guidance development

25. During the reporting period, the Nuclear Security Series Implementing Guide *Physical Protection of Nuclear Material and Nuclear Facilities (Implementation of INFCIRC/225/Revision 5)* was published as IAEA Nuclear Security Series No. 27-G. This publication provides States with detailed guidance to assist them in implementing the *Recommendations on Physical Protection of Nuclear Material and Facilities (INFCIRC/225/Revision 5)* (NSS No. 13). In addition, the Nuclear Security Series Implementing Guide *Developing Regulations and Associated Administrative Measures for Nuclear Security* was published as IAEA Nuclear Security Series No. 29-G.

26. The Nuclear Security Series Implementing Guide provisionally entitled *Security during the Lifetime of a Nuclear Facility* received final approval for publication during the reporting period. Technical Guidance provisionally entitled *Handbook on the Design of Physical Protection Systems for Nuclear Material and Nuclear Facilities*, which will replace the *Handbook on the Physical Protection of Nuclear Material and Facilities (IAEA-TECDOC-1276)* published in 2002, and Technical Guidance provisionally entitled *Developing a Nuclear Security Contingency Plan for Nuclear Facilities* were approved by the NSGC for publication.

27. In addition, the non-serial publication provisionally entitled *Preparation, Conduct and Evaluation of Exercises to Test Contingency Plans at Nuclear Facilities* was approved for publication.

Assistance provided to States

28. The Agency delivered three international training courses on establishing and enhancing regulatory frameworks in Vienna, Austria, in July 2017, in Cairo, Egypt, in October 2017 and in Kuala Lumpur, Malaysia, in June 2018.

29. The Agency also implemented two new training courses on protection against sabotage of regulated facilities and on the implementation of IAEA Nuclear Security Series No. 13, *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5)*.

30. The Agency conducted the following international and regional training courses and workshops on physical protection of nuclear material during the reporting period:

- International workshop on managing the interface between safety and security for research reactors organized jointly with the Division of Nuclear Safety for Nuclear Installations, in Vienna, Austria (October 2017);
- International training course on the *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5)* in Chakri, Pakistan (December 2017);
- International seminar on the regulatory inspection of nuclear facilities with respect to nuclear security, focused on the discussion of Member State experiences and good practices

for conducting inspections of nuclear facilities for nuclear security in Vienna, Austria (May 2018);

- Regional training course on the evaluation of physical protection system effectiveness for Asia and the Pacific in Daejeon, the Republic of Korea (October 2017);
- Regional training course on protection against sabotage of nuclear material and nuclear facilities and radioactive material and associated facilities for Asia and the Pacific in Beijing, China (November 2017);
- Regional workshop and table top exercise on management of the response to a nuclear security event for Europe in Vienna, Austria (December 2017);
- Regional train the trainers course on the physical protection of nuclear material and nuclear facilities for Asia and the Pacific in Daejeon, the Republic of Korea (February 2018);
- Regional workshop on the Management of the Response to a Nuclear Security Event at Nuclear Facilities for Latin America in Buenos Aires, Argentina (May 2018);
- Regional training course on the establishment of a nuclear security regime for Asia and the Pacific in Amman, Jordan (June 2018);
- Regional training course on the development of performance testing for nuclear facilities in Vienna, Austria (June 2018).

In addition, the Agency conducted multiple national training courses and workshops on various aspects of the physical protection of nuclear material in Amman, Jordan; in July 2017, in Islamabad, Pakistan, in August and November 2017 and June 2018; in Delft, the Netherlands, in October 2017; and in Tunis, Tunisia, in March 2018 for Libya.

31. The Agency, in cooperation with the Russian Federation, conducted four additional training courses, namely, an international training course on the Practical Operation of Physical Protection Systems at Nuclear Facilities in Obninsk, Russian Federation, in November 2017; an international training course for Newcomer Countries on Nuclear Security Systems and Measures for the Implementation of a National Nuclear Power Programme in St. Petersburg, Russian Federation, in September 2017; a regional training course on Nuclear Security in Practice: Field Training for University Students in Obninsk, Russian Federation in October 2017; and an international training course on the Establishment of a Nuclear Security Regime for Nuclear Power Programmes in St. Petersburg, Russian Federation, in May 2018.

32. The Agency, in cooperation with the United States of America, continued to conduct an advanced three-week international training course on the Physical Protection of Nuclear Material and Nuclear Facilities. This course is available to Member States that have nuclear facilities in operation, under construction or under decommissioning. The course was conducted from April to May 2018 at Sandia National Laboratories in Albuquerque, the United States of America. The course was attended by 53 participants from 40 Member States. Since its introduction in 1978, this course has been attended in total by 925 participants from 75 Member States.

33. The uranium ore concentrate (UOC) project has continued to assist Member States through training courses that are based on the Agency publication entitled *Nuclear Security in the Uranium Extraction Industry*. The courses focus on implementing prudent management practices to protect, control and manage UOC in processing, storage and transport.

34. At the request of four Member States, the Agency continued to assist with physical protection upgrades.

Coordinated Research Projects

35. The Agency implements coordinated research projects (CRPs) under the Nuclear Security Plan to promote research and development to support nuclear security. Details of all CRPs implemented under the Nuclear Security Plan can be found on the NUSEC portal and the Agency's website¹.

36. During the reporting period, the following CRP was completed:

- **J02004 Development of Nuclear Security Assessment Methodologies (NUSAM) for Regulated Facilities.** This CRP was initiated in 2013 and had four working groups, which have completed their main objectives and have documented their results. The CRP used a structured, comprehensive and appropriately transparent process to establish a risk-informed, performance-based methodological framework. The CRP compared the results of simple pathway analysis tools, complex modelling and simulation tools, and tabletop exercise methodologies.

Cross-cutting themes

37. Work described in the following sections relates primarily to those facilities and activities, including transport, involving nuclear and other radioactive material.

Threat characterization and assessment

38. In 2016, the Agency agreed to review and revise IAEA Nuclear Security Series No. 10, *Development, Use and Maintenance of the Design Basis Threat*. The Agency held a Technical Meeting in Vienna, Austria in February 2018 to review the draft of the revised publication, and to discuss an updated methodology for development, use and maintenance of the nuclear security threat assessment, representative threat statement and design basis threats (DBT s). Following this meeting, the draft publication was approved by the NSGC to be sent to Member States for a 120-day review period.

39. The Agency continued advising States on threat characterization and assessment, the development, use and maintenance of DBT s or representative threat statements, vulnerability analysis and the development of methodologies for performance assessment of physical protection systems. The Agency conducted three regional DBT workshops: for Africa in Niamey, Niger, in July 2017, for Africa in Accra, Ghana, in October 2017 and for Latin America in Buenos Aires, Argentina, in June 2018. The Agency delivered 11 national DBT workshops: in Manama, Bahrain, in February 2018, in La Paz, Bolivia, in November 2017, in Phnom Penh, Cambodia, in October 2017, in Amman, Jordan, in September 2017, in Nairobi, Kenya, in April 2018, in Kuwait City, Kuwait, in May 2018, in Dengkil, Malaysia, in July 2017, in Ulaanbaatar, Mongolia, in August 2017, in Rabat, Morocco, in January 2018, in Kiev, Ukraine, in September 2017 and in Tashkent, Uzbekistan, in March 2018.

Nuclear Security Culture

40. The Nuclear Security Series Technical Guidance *Self-Assessment of Nuclear Security Culture in Facilities and Activities* was published as IAEA Nuclear Security Series No. 28-T.

41. The Agency continued its efforts to enhance understanding of nuclear security culture and its application in practice through an international workshop in Islamabad, Pakistan, in April 2018 and two regional workshops for Africa in Rabat, Morocco, in September 2017 and in Accra, Ghana, in June 2018. National workshops were also held in Putrajaya, Malaysia, in October 2017 and in Mexico City, Mexico, in May 2018.

¹ <https://cra.iaea.org/cra/explore-crps/all-active-by-programme.html>

42. A nuclear security culture self-assessment trial at two medical facilities in Malaysia, supported by the Agency, was completed during the reporting period. The Agency also organized a national workshop in Putrajaya, Malaysia, in November 2017 on the process for carrying out a self-assessment. In addition, an expert mission to support nuclear security culture self-assessment at two universities in Malaysia was conducted in March 2018.

Coordinated Research Projects

43. The following CRP continued:

- **J02007 Development of Nuclear Security Culture Enhancement Solutions.** This CRP was launched in September 2015 to address the need for practical methodologies, tools and experience as well as knowledge-sharing of approaches to support the application of the nuclear security culture concept in practice. Ten participating institutions are conducting research and developing a database of nuclear security events in order to identify ways to further strengthen nuclear security culture. The Agency organized a Technical Meeting in Vienna, Austria, in October 2017 to share the findings of this CRP.

International Physical Protection Advisory Service

44. Since 1996, 84 International Physical Protection Advisory Service (IPPAS) missions have been conducted, upon request, in 50 Member States. During the reporting period, IPPAS missions were conducted in Australia in October–November 2017, China in August–September 2017, the Democratic Republic of Congo in December 2017, Ecuador in March 2018, France in March 2018, Germany in September–October 2017, Lithuania in October 2017 and Switzerland in May–June 2018.

45. The Agency held three national IPPAS workshops in Quito, Ecuador, in January 2018, Brugg, Switzerland, in January 2018, and New Delhi, India in December 2017 to provide information on the processes for preparing and conducting IPPAS missions and on the benefits of such missions. In October, it hosted the Third International Workshop on IPPAS for Potential Team Members of Future IPPAS Missions in Vienna, Austria. The workshop, attended by 53 participants from 29 Member States, was aimed at increasing the number of experts able to participate in such missions.

B.2.2. Enhancing nuclear material security using accounting and control

Guidance development

46. One Nuclear Security Series Implementing Guide received final approval for publication: a revision of *Preventive and Protective Measures against Security Threats* (Nuclear Security Series No. 8).

Assistance provided to States

47. One international training course on nuclear material accounting and control for nuclear security purposes was delivered in Vienna, Austria, in August 2017.

Advising States on preventive and protective measures against insider threats

48. Member States have asked the Agency to provide advice on preventive and protective measures against insider threats. The Agency held four national training courses on the subject: for Iraq in Vienna, Austria, in August 2017, in Rabat, Morocco, in October 2017, in Abuja, Nigeria, in February 2018 and in Manila, the Philippines, in March 2018. The Agency integrated a three-dimensional (3D) model of a hypothetical facility developed during the last period into training courses addressing preventive and protective measures against insider threats. The model allows users to see the location of materials, the

protection measures currently in place, and how additional measures might improve security against insiders, by allowing them to move around the facility as though they were workers or visitors.

B.2.3. Upgrading security of radioactive material and associated facilities

49. The Agency continued its efforts to support States through the development of guidance, training, and expert and technical support.

Guidance development

50. The revision of the Implementing Guide *Security of Radioactive Material in Use and Storage and of Associated Facilities (Nuclear Security Series No. 11)* received final approval for publication. In addition, Technical Guidance provisionally entitled *Security Management and Security Plans for Radioactive Material and Associated Facilities* was approved by the NSGC to be sent to Member States for a 120-day review period.

Assistance provided to States

51. Recognizing the need of many Member States for support in the development of regulations for nuclear security, the Agency launched a specific project dedicated to enhancing the national regulatory frameworks for nuclear security in African States. A regional workshop on lessons learned in implementation of regulations for nuclear security was held in Vienna, Austria, in February 2018 and was attended by 47 participants from 34 African States. A regional training course was also held on this topic for English-speaking African States in Livingstone, Zambia, in October 2017. The objective of the project is to assist States in the development and drafting of regulations to support national nuclear security regimes.

52. In addition, the Agency launched a similar project with a focus on enhancing frameworks for both safety and security for eight States in Latin America and the Caribbean. Four regional workshops on assessment, authorization, inspection and enforcement were held during the reporting period, two in Quito, Ecuador, in February and February–March 2018 and two in Santiago, Chile in April 2018. In addition, an eight-week training course on enhancing safety and security regulations was held in Buenos Aires, Argentina in April–June 2018.

53. International training courses on security of radioactive sources were held in Vienna, Austria, in July 2017 and in Badadurgarh, India in October 2017. Regional training courses on this topic were held in Manila, the Philippines, in April 2018 for Asia and the Pacific, in Obninsk, the Russian Federation in December 2017 for Europe and in Montevideo, Uruguay, in March 2018 for Latin America. National training courses were held in Kigali, Rwanda, in November 2017 and in Doha, Qatar, in February 2018. The Agency also developed specific training material for authorizations and inspections for the security of radioactive material in use and storage and of associated facilities.

54. Expert assistance was provided to Member States through interregional, regional and national technical cooperation programmes and nuclear security projects. Physical protection projects to secure radioactive material in fixed applications in Iraq, Lebanon, Libya and Malaysia are ongoing.

55. The Agency continued to assist States with the secure management of disused sources. An expert mission to Mozambique was conducted, focused on the establishment of comprehensive national strategies. Removal and consolidation efforts focused on Columbia, Lebanon and Tunisia — three high activity disused sources were repatriated to Canada from Lebanon during the reporting period. New projects have been initiated and are ongoing in Albania, Bahrain and in the former Yugoslav Republic of Macedonia. The repatriation of 27 disused high activity sources from South America (Plurinational State of Bolivia, Ecuador, Paraguay, Peru and Uruguay) was completed during the reporting period.

56. The Agency continued to support Member States in establishing a borehole disposal capacity through a pilot project for Ghana and Malaysia. This project focused on the development of regulations for borehole disposal; the development of guidance to assist competent authorities and operators; expert missions to address technical implementation requirements; the development of mobile hot cell capabilities, the review of site characterization and design reports; and the review of safety and security cases by a team of international experts. As part of the project, the Agency developed and installed a Mobile Tool Kit Facility and provided training on its operation, including through three Technical Meetings convened at the Agency's laboratory in Seibersdorf, Austria. The project reached its final stages and the safety cases and security plans were finalized for evaluation and for approval by the respective regulatory authorities.

Supporting continued dialogue on the security of radioactive sources

57. The seventh meeting of the Working Group on Radioactive Source Security took place in Vienna, Austria, in April 2018 and was attended by 107 participants from 68 Member States and 3 observer organizations. Participants discussed national efforts to establish and strengthen regulatory frameworks and national implementation of IAEA Nuclear Security Series Guidance. This included the development of security-specific regulations as well as processes required to ensure the security of radioactive sources including inspection and authorization.

Support for the Code of Conduct

58. As of 30 June 2018, 137 States have made a political commitment to implement the Code of Conduct on the Safety and Security of Radioactive Sources, of which 114, including 6 States in the reporting period, have also notified the Director General of their intention to act in a harmonized manner in accordance with the Code's supplementary Guidance on the Import and Export of Radioactive Sources. A total of 143 States have nominated points of contact to facilitate the export and import of radioactive sources. The Agency held an Open-ended Meeting of Legal and Technical Experts on Implementation of the Guidance on the Import and Export of Radioactive Sources in Vienna, Austria, in June 2018. The meeting provided for exchange of information among Member States and identified current needs to ensure safe and secure management of radioactive sources during import and export worldwide. The meeting concluded that there is currently no need for the Secretariat to initiate the revision of the *Guidance on the Import and Export of Radioactive Sources*, and efforts should be focused on the full and systematic implementation of its current provisions.

59. In April 2018, the Agency published the *Guidance on the Management of Disused Radioactive Sources*, supplementary to the Code of Conduct on the Safety and Security of Radioactive Sources. Three States have notified the Director General of their intention to act in harmonized manner and in accordance with the Code's supplementary Guidance on the Management of Disused Radioactive Sources. This guidance is based on the Agency's safety standards and nuclear security guidance, and it addresses safety and security in an integrated manner. The Report of the Chairman of the Open-ended Meeting of Legal and Technical Experts on the Implementation of the Code of Conduct on the Safety and Security of Radioactive Sources, which took place in June 2017, was made available on the Agency's web site². The Agency participated in the Annual General Meeting of the International Source Suppliers and Producers Association in Bethesda, the United States of America, in February 2018. The Agency presented the report of the Chairman and also promoted the new supplementary *Guidance on the Management of Disused Radioactive Sources*.

² <https://www-ns.iaea.org/downloads/rw/code-conduct/info-exchange/chairman-report-june2017.pdf>

B.2.4. Nuclear security in the transport of nuclear and other radioactive material

Assistance provided to States

60. The Agency continues to assist States, upon request, in strengthening transport security arrangements at the national and international levels, based on the relevant recommendations, and assisting with their practical implementation.

61. International training courses on security of nuclear material during transport were delivered in Paris, France in June 2018 and Karlsruhe, Germany in October 2017. Regional training courses and workshops on security of radioactive material in transport were delivered in Kingston, Jamaica, in December 2017 for Latin America, in Dakar, Senegal, in July 2017 and Victoria Falls, Zimbabwe, in March 2018 for Africa. National workshops on this topic, focusing on tabletop exercises, were held in Abuja, Nigeria, in August 2017 and Beijing, China, in September 2017.

62. Expert assistance on the development of national regulatory infrastructures related to transport security of nuclear and other radioactive material was provided to Egypt, Burkina Faso, Uganda, Mauritania, Viet Nam, Malawi and the Democratic Republic of Congo. Finalization workshops were held during the reporting period in Vienna, Austria in August 2017 for Egypt and in Ougadougou, Burkina Faso in April 2018 for Burkina Faso.

B.3. Nuclear Security of Materials out of Regulatory Control

63. Agency work under this sub-programme is carried out under three projects: institutional infrastructure for nuclear and other radioactive material out of regulatory control; nuclear security detection and response architecture; and radiological crime scene management and nuclear forensic science.

B.3.1. Institutional infrastructure for material out of regulatory control

Assistance provided to States

64. The Agency started work on a project to design and supply radiation portal monitor maintenance and calibration training units to Nuclear Security Support Centres (NSSCs). These training units, when complete, will enable States to more effectively perform hands-on training of front-line officers charged with the maintenance and calibration of radiation portal monitors.

65. The Agency also continued work on the Integrated Nuclear Security Network (INSN) project, which aims to develop a networked system that enables States to more effectively maintain awareness of the status of their radiation detection equipment. At the end of June, the Agency held a training event at its laboratory at Seibersdorf on testing methods for detection equipment. This event was the first in what will be an ongoing series of training events to build expertise in States with the eventual goal of having this course managed by NSSCs. Four Member States have volunteered to test this project: Viet Nam, Cambodia, Lebanon and Georgia.

INSServ Missions

66. The Agency completed the drafting of new guidelines for INSServ missions. The new guidelines are primarily for team members of INSServ missions and to Member States that are considering hosting a mission. The new guidelines, when approved, will begin to be implemented in INSServ missions during the next reporting period.

B.3.2. Nuclear security detection and response architecture

67. The Agency develops guidance and provides training and assistance to States, upon request, to establish and sustain their capabilities to detect criminal or intentional unauthorized acts involving nuclear and other radioactive material out of regulatory control, and to respond to nuclear security events. The Agency also initiates and manages coordinated research projects to address emerging nuclear security issues identified by Member States and help to enhance States' technical capabilities.

Guidance development

68. The Nuclear Security Series Implementing Guide Preventive Measures for Material out of Regulatory Control and the Technical Guidance Planning for and Organization of Nuclear Security Measures for Material out of Regulatory Control received final approval for publication during this period. The Implementing Guide provisionally entitled Developing a National Framework for Managing the Response to Nuclear Security Events was approved by the NSGC for publication. The Technical Guidance provisionally entitled Exercising Nuclear Security Systems and Measures for Detection of and Response to Material out of Regulatory Control was approved by the NSGC to be sent to Member States for a 120-day review period.

Assistance provided to States

69. The Agency has developed a project approach with Member States, coordinating with NSSCs and promoting systems and measures, for the detection of material out of regulatory control. The project approach follows Agency Implementing Guides, beginning with a Member State identifying a need to develop nuclear security detection architecture (NSDA). The Agency's support covers how to build and maintain an NSDA by identifying a strategy based on threat assessment, a workshop for developing a legal and regulatory framework, and a workshop for risk-informed approach to threat assessment. In support of these activities, an international training course was held in Veracruz, Mexico, in August 2017 and regional workshops were conducted for Africa in Ouagadougou, Burkina Faso, in September 2017 and in Addis Ababa, Ethiopia, in February 2018, all of which focused on assisting States to build a roadmap to NSDA. An international training course on sustainable training programmes for nuclear security detection was conducted in Mexico City, Mexico, in July 2017.

70. The Agency continued its cooperation with the Centre for Security Cooperation (RACVIAC) for South Eastern Europe, a regionally owned organization, to deliver workshops on NSDA. A regional workshop on the development of an NSDA design plan took place in Tirana, Albania in November 2017 with the cooperation of RACVIAC.

71. The following training courses were held on the detection of material out of regulatory control:

- International training course on essential elements of nuclear security of material out of regulatory control at Argonne National Laboratory in Illinois, the United States of America (May 2018);
- Regional training course for East Asia and the Pacific on building capacity for nuclear security in Beijing, China (August 2017);
- Regional training course for Latin America on threat assessment and a risk informed approach to nuclear security of nuclear and other radioactive material out of regulatory control in Asunción, Paraguay (July 2017);
- Regional train-the-trainers course on the development of NSSC capabilities in nuclear security detection in Kuala Lumpur, Malaysia (September 2017).

Related national training courses were also held in Santiago, Chile, in November–December 2017, for Indonesia in Vienna, Austria, in May 2018, and in Casablanca, Morocco, in July 2017. The Second International Coordination Meeting for Front Line Officers was also held in Vienna, Austria, in August 2017.

72. In April 2018, the Agency sponsored a Cooperation Simulation for Nuclear Security (COSINUS) exercise in Dushanbe, Tajikistan for four countries in Central Asia (Kyrgyzstan, Tajikistan, Kazakhstan and Uzbekistan) in cooperation with the European Union's Joint Research Centre. This simulation-type exercise focused on front line officers and expert support personnel, with the goal of improving regional understanding and supporting the regional exchange of good practices.

73. The Agency initiated a new programme focusing on detection of nuclear and other radioactive material in urban areas. An international workshop on this topic was convened in New York City, United States of America, in December 2017, and subsequently two meetings on this topic were held in Vienna, Austria, including a Technical Meeting on Detection of Criminal or Intentional Unauthorized Acts involving Material out of Regulatory Control within a State's Interior in February 2018.

74. A Technical Meeting on Radiation Detection Instruments for Nuclear Security: Trends, Challenges and Opportunities was held in Vienna, Austria in April 2018, and was attended by 136 participants from 70 Member States.

75. In 2016, a laboratory to support activities in relation to handheld detection equipment was established in the Agency. The mission of this nuclear security laboratory covers three main areas:

- A repository of equipment to loan or donate to a State to support its detection system;
- Management of a pool of equipment that the Agency utilizes for major public events and training, including operation of equipment and calibration;
- Demonstrations of new types of equipment.

76. The Agency provided sixteen States with handheld detection equipment: Argentina, Belarus, Chile, Indonesia, Japan, Malaysia, Madagascar, Mauritania, Mongolia, Morocco, Panama, the Philippines, Sri Lanka, Sudan, Tajikistan and the United Republic of Tanzania.

77. The Agency supported States in evaluating their abilities to deliver a number of key response activities that are central to a State's planned ability to respond effectively in order to assist them to develop national response plans for nuclear security events. Two regional workshops on this topic were held: for French-speaking African countries in Dakar, Senegal, in October 2017, and for Latin America in Santiago de Chile, Chile, in December 2017. In addition, a national workshop on the development of key response capabilities was delivered in Cochabamba, the Plurinational State of Bolivia, in July 2017 and two national workshops were provided on national frameworks for response to nuclear security events, in Chakri, Pakistan, in January 2018 and in Panama City, Panama, in May 2018. These workshops primarily focus on national coordination arrangements for response.

78. The Agency co-organized an International Workshop on Nuclear Security Measures and Emergency Response Arrangements for Ports to strengthen States' abilities to plan and prepare for the implementation of nuclear security systems and measures in land, maritime and air domains. This workshop was delivered in Las Vegas, Nevada, the United States of America, in November 2017, and was attended by 21 participants from 16 States.

79. The Agency also assisted with training exercises to help States to test and strengthen their ability to respond to nuclear security events. A coordinated training exercise was held in Casablanca and Fes,

Morocco, in May 2018. To prepare for this exercise, two events were convened and held in Rabat, Morocco, in February and April 2018.

Major public events

80. The Agency has provided, upon request, assistance to States hosting major public events to strengthen the implementation of nuclear security measures before and during the events. Such assistance includes coordination meetings, the delivery of workshops, and training in the use of detection equipment at such events. The Agency also arranged a technical visit for senior officials to observe how nuclear security measures at major public events were implemented for the Super Bowl 2018, held in the United States of America in January 2018. During the reporting period, the Agency assisted States, upon request, with the following major public events:

- In Kazakhstan, in preparation for EXPO 2017 (June- September 2018);
- In Malaysia, in preparation for 29th Southeast Asian Games (August 2017);
- In Uzbekistan, in preparation for the International Musical Festival “Sharq Taronalari” (August 2017);
- In the Philippines, in preparation for 31st ASEAN Leaders Summit and for celebration of the ASEAN 50th Anniversary (November 2017);
- In Indonesia, in preparation for the 18th Asian Games (August-September 2018);
- In Argentina, in preparation for the 2018 G20 Buenos Aires Summit (November 2018);
- In Panama, in preparation for World Youth Day 2019 (January 2019).

In February 2018 the Agency signed a Practical Arrangement with Japan, as part of its preliminary arrangements to provide support to the 2020 Olympics, to be held in Tokyo.

81. The Agency conducted five coordination meetings on nuclear security measures for major public events in Vienna, Austria in March 2018 for Argentina, in Jakarta and Palembang, Indonesia, in September and December 2017, in Tashkent, Uzbekistan, in July 2017 and for Panama in Vienna, Austria, in October 2017. The Agency also held one International Workshop in Washington, D.C., United States of America, in June 2018, one Regional Workshop in Tokai, Japan, in September 2017, and 11 national training workshops: in Buenos Aires, Argentina, in June 2018, in Jakarta, Indonesia, in December 2017 and June 2018, in Rabat, Morocco, in November 2017, in Panama City, Panama, in February and March 2018, in Bucharest, Romania, in July 2017, in Kampala, Uganda, in February 2018, in Tashkent, Uzbekistan, in July 2017 (also a coordination meeting), and in Vienna, Austria, in September 2017 for the Philippines and in May 2018 for Indonesia. A regional training course on developing and implementing nuclear security systems and measures for major public events was held in Rio de Janeiro, Brazil, in November 2017. The Agency also loaned a total of 464 radiation detection instruments.

Coordinated Research Projects

82. During the reporting period, the following CRP continued:

- **J02005 Improved Assessment of Initial Alarms from Radiation Detection Instruments.** This CRP is under way with over 20 States participating in the development of tools and technical documents to improve the decision-making process for determining whether an alarm is innocent or suspicious i.e. may indicated the presence of nuclear or other radioactive materials out of regulatory control. The tools will help ensure effective and efficient assessment of radiation alarms and also reduce training needs for front line

officers operating detection systems. The first tool to be developed under this CRP was publicly released for use on 7 June 2017. The Tool for Radiation Alarm and Commodity Evaluation (TRACE) is a freely distributed mobile application and is the first of its kind. During the reporting period, the number of users of the app increased to over 5000 and the mobile application software interface was translated into three UN languages and two other languages.

B.3.3. Radiological Crime Scene Management and nuclear forensic science

Assistance provided to States

83. The Agency conducts a regular training course in radiological crime scene management (RCSM) in a number of States. In December 2016, the Agency extended its training programme of advisory services related to RCSM that provides specific, tailored recommendations to a State on how to build capacity for RCSM in an effective and sustainable manner.

84. Activities are undertaken on the basis of INSSP reports and through direct requests received from States. The Agency conducted training workshops on RCSM in Quito, Ecuador, in September 2017, in Chisinau, Republic of Moldova, in February 2018 and in Asunción, Paraguay, in November 2017. The Agency initiated a project to provide needed RCSM equipment to States.

85. The Agency continued its assistance to Member States in the response to nuclear and other radioactive materials encountered out of regulatory control by supporting the development and sustainability of nuclear forensics functions as part of a nuclear security infrastructure. The Agency conducted technical visits and expert missions on the practice of nuclear forensics in China in November 2017 and in Spain in February 2018. Additionally, for the first time, the Agency hosted a Technical Meeting in Vienna, Austria, in July 2017 providing a forum on nuclear forensic science for Africa.

86. The Agency organized the international nuclear forensics methodologies applied training course for practitioners at Pacific Northwest National Laboratory, the United States of America, in April–May 2018, in cooperation with the US National Nuclear Security Administration and with technical support from the European Commission's Joint Research Centre. An Agency regional introductory training course was convened in Pretoria, South Africa, in November 2017, and a national introductory training course in Dubai, the United Arab Emirates, in November 2017. An international training course addressing a practical introduction to nuclear forensics was held in Budapest, Hungary, in October 2017 and a regional training course on the same topic was held in Sydney, Australia, in October 2017. In addition, an introductory seminar in nuclear forensic science was held in the Russian language in Moscow, Russian Federation, in September 2017. To facilitate the provision of assistance, the Agency signed Practical Arrangements with the Romanian Horia Hulubei National Institute for Research and Development in Physics and Nuclear Engineering in July 2017.

Coordinated Research Project

87. During the reporting period, the following CRP was initiated:

- **J02013 Applying Nuclear Forensic Science to Respond to a Nuclear Security Event.** This CRP, initiated in May 2018, seeks to promote consistent and scientifically defensible implementation of nuclear forensics examination in line with national laws and international legal instruments. In particular, it seeks to link nuclear science with investigative requirements.

B.4. Programme Development and International Cooperation

88. Agency work under this sub-programme is carried out under three projects: international cooperation on nuclear security networks and partnerships; coordinating nuclear security guidance and advice services; and education and training programmes for human resource development.

B.4.1. International cooperation on nuclear security networks and partnerships

Promoting further adherence to international legal instruments

89. Member States have recognized physical protection as a key element of nuclear security. A goal and priority for as set out in operative paragraph 9 of the Nuclear Security Resolution 2017³ was to promote further adherence to the Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) with the aim of its universalization. The Agency conducted two regional workshops during the reporting period to provide States with information and encourage them to adhere to the CPPNM and its Amendment: in Tokai, Japan, in May 2018 for Asia and the Pacific and in Abidjan, Côte d'Ivoire, in June 2018 for French-speaking Africa⁴.

90. The third Technical Meeting of the Representatives of States Parties to the CPPNM and the Amendment was held in Vienna, Austria, in November 2017, with the participation of 50 Parties to the CPPNM and the Amendment. During the Meeting, the participants discussed matters such as the efforts towards universalisation of the CPPNM Amendment as well as full implementation through the development and strengthening of Member States' legislative and regulatory frameworks for nuclear security, and improvements to the mechanisms for information sharing. Discussions relating to the preparation of the 2021 Conference of the States Parties to the CPPNM Amendment to review the implementation of the Convention were also held.

91. The Agency also continued to maintain the database of points of contact for the CPPNM as well as the Amendment and of national legislation and regulations giving effect to the CPPNM and its Amendment, as provided by States' Parties.

92. The International Convention for the Suppression of Acts of Nuclear Terrorism gained three States Parties during the reporting period, bringing the total number to 113 as of 30 June 2018.

Playing a central and coordinating role in nuclear security

93. The Agency hosted two Information Exchange Meetings in Vienna, Austria, in November 2017 and in April 2018 to coordinate activities in nuclear security and to avoid duplication in the activities undertaken by various relevant organizations. Participants from 11 organizations and initiatives such as the Global Initiative to Combat Nuclear Terrorism and the Global Partnership against the Spread of Weapons and Materials of Mass Destruction exchanged information, discussed various themes within nuclear security, and reached a better understanding of activities being undertaken by each organization. In addition, during the April 2018 meeting, for the first time during an Information Exchange Meeting, participating organizations and initiatives briefed Member States on their activities in order to increase transparency and encourage communication.

94. In November 2017, the Agency, in cooperation with the World Institute for Nuclear Security, the World Nuclear Transport Institute and INTERPOL, convened the International Conference on the Physical Protection of Nuclear Material in Vienna, Austria. The conference drew some 700 participants

³ GC(61)/Res/9

⁴ The latest status for the Amendment to the CPPNM is available at the following link: http://www.iaea.org/Publications/Documents/Conventions/cppnm_amend_status.pdf

from 95 Member States, representing competent authorities, facility operators, shippers and carriers and technical support organizations. Participants shared lessons learned and good practices in implementing the *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5)*.

B.4.2. Education and training programmes for human resource development

Training programmes

95. In the reporting period, more than 2400 participants from 149 States took part in 124 training activities, and 877 users from 104 States completed 3681 e-learning modules.

96. The Agency has devoted additional resources to the development of e-learning courses to make training more readily available. The Agency also initiated a project to translate all e-learning courses into all United Nations official languages. In addition, work was initiated to make nuclear security lectures available on the Agency's e-learning platform.

97. To assist States in better identifying their human resource development needs and to promote the systematic approach to training (SAT), the Agency conducted a regional workshop in support of human resource development in nuclear security in Podgorica, Montenegro, in October–November 2017 and began development of a comprehensive set of training materials to be used in seminars for senior managers. The training programme — fully employing SAT methodology — for front line officer instructors was developed during the last reporting period, and implementation continued this period. More broadly, SAT methodology continued to be further implemented in developing, revising, evaluating and improving Agency training courses.

Nuclear security education

98. The International Nuclear Security Education Network (INSEN) continues to assist its member institutions and States in establishing and enhancing educational programmes on nuclear security based on international guidance and recommendations. The Network now has 170 institutions from 62 Member States. During the reporting period, INSEN members started the development of five packages of teaching materials and completed two textbooks on nuclear security. Over 80 per cent of members offer modules, courses or degree programmes in nuclear security, using largely INSEN-developed teaching materials. Over 350 faculty members participated in faculty development courses to enable them to teach nuclear security at their institutions. INSEN and the NSSC Network collaborated with their members to promote human resource development good practices and to share information, expertise and resources. The INSEN annual meeting was held in Vienna, Austria, in July 2017.

99. Following an agreement between the Agency and University of National and World Economy in 2014 in Bulgaria, the Agency assisted the University in the implementation of a master's programme in nuclear security based on *Educational Programme in Nuclear Security* (IAEA Nuclear Security Series No. 12). The Agency has provided fellowships to 18 students from developing Member States, 7 of whom graduated in June 2018. The Agency also began to assist the Brandenburg University of Applied Sciences in the implementation of an online master's programme in nuclear security. The Agency provided fellowships to four students from developing Member States for this programme.

100. The eighth joint International School on Nuclear Security took place at the Abdus Salam International Centre for Theoretical Physics in Trieste, Italy, in April 2018, with 40 participants from 38 Member States attending. The Agency offers regional equivalents on a regular basis to meet the high demand for the School. Two such Schools were implemented: the Regional School on Nuclear Security for French-speaking Africa in Kenitra, Morocco, in October 2017, attended by 33 participants from

20 Member States, and the Regional School on Nuclear Security for Latin America in Madrid, Spain, in May 2018, attended by 34 participants from 14 Member States.

101. IAEA Nuclear Security Series No. 12, *Educational Programme in Nuclear Security*, was revised to reflect current IAEA Nuclear Security Series guidance and recommendations as well as feedback from INSEN, and was approved by the NSGC for publication during this reporting period.

Nuclear security support centres

102. The Agency continues to respond to State requests for assistance with development of national Nuclear Security Support Centres (NSSCs) as a means to strengthen the sustainability of nuclear security through programmes in human resource development, technical support and scientific support for the prevention and detection of and the response to nuclear security events.

103. The NSSC Network facilitates sharing of information and resources to promote coordination and collaboration among States with an NSSC or those having an interest in developing such a centre. The Network has grown since its inception in 2012 and now has representatives from 60 Member States. Over the past year, the Agency and NSSC Network members have made further progress with several activities to strengthen the NSSC Network, including the deployment of new network information management tools on NUSEC and revision of a TECDOC on the establishment and operation of an NSSC. The annual meeting of the NSSC Network was held in Tokaimura, Japan, in March 2018.

B.4.3. Coordinating nuclear security guidance and advice services

104. The Nuclear Security Guidance Committee (NSGC) successfully completed its second three-year term, and started its third term in June 2018. The NSGC met twice in Vienna, Austria, in November 2017 and June 2018. The Committee approved seven guides for publication in the IAEA Nuclear Security Series (NSS), three draft publications for submission to Member States for comment and one proposal for a new publication. An NSGC working group completed its work to develop recommendations for updating the roadmap on the future development of Nuclear Security Series publications. These recommendations were presented to the NSGC for discussion at the final meeting of its second term. The Secretariat generated a new draft roadmap based on these discussions, which was presented to the first meeting of the third term of the NSGC.

105. By 30 June 2018, there were 30 current publications in the Nuclear Security Series, a further 8 approved for publication, and 17 others (including 3 revisions of existing Nuclear Security Series publications) at various stages of development, in accordance with the roadmap agreed with the NSGC.

106. The Advisory Group on Nuclear Security (AdSec) met in Vienna, Austria, in October 2017 and in April 2018. AdSec and the International Nuclear Safety Group (INSAG) continued discussions to identify possible topics on which to cooperate. AdSec presented a draft proposal to INSAG to work on a joint publication on safety-security interfaces; INSAG gave the proposal a positive reception. AdSec also continued work on projects focusing on advising the Director General on emerging technologies.

C. Programme management and resources

107. Expenditure in the period from 1 July 2017 to 30 June 2018 comprised disbursements of approximately € 28.3 million. Total unliquidated obligations were approximately € 10.6 million as of 30 June 2018.

108. In the period 1 July 2017 to 30 June 2018, the Agency accepted pledges to the Nuclear Security Fund from Belgium, China, Denmark, Finland, France, Germany, Indonesia, Italy, Japan, Republic of Korea, New Zealand, Spain, Sudan, Sweden, Switzerland, United Kingdom, United States of America and other non-traditional sources.

D. Goals and Priorities for 2018–2019

109. In the next period, the Agency will continue to implement the actions called for in the Nuclear Security Plan 2018–2021 in a prioritized manner within available resources.

110. In line with the ongoing priorities identified by Member States, the following are the main nuclear security programmatic goals and priorities for 2018–2019, subject to the Nuclear Security Plan 2018-2021 and availability of resources:

- Conduct the International Conference on Security of Radioactive Material: the Way Forward for Prevention and Detection in Vienna, Austria, in December 2018;
- Promote further adherence to the Amendment to the CPPNM with the aim of its universalization and continue preparations for the Review Conference on the Amendment to the CPPNM to take place in 2021;
- Initiate preparations for the next International Conference on Nuclear Security to be held in Vienna, Austria, in the first quarter of 2020.