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## **MEASURES TO IMPROVE THE SECURITY OF NUCLEAR MATERIALS AND OTHER RADIOACTIVE MATERIALS**

### **BACKGROUND**

1. On 22 September 2000, the General Conference adopted resolution GC(44)/RES/20 on “Measures against illicit trafficking in nuclear materials and other radioactive sources”. This resolution was brought to the attention of the United Nations Secretary-General by means of a letter dated 8 November 2000 from the Director General of the IAEA.
2. This report summarizes the main activities carried out by the Agency relevant to the areas covered in resolution GC(44)/RES/20.

### **INFORMATION EXCHANGE**

#### *International Conference on Security of Material*

3. An International Conference on Security of Material – “*Measures to Detect, Intercept and Respond to the Illicit Uses of Nuclear Material and Radioactive Sources*” — was held in Stockholm, Sweden, in May 2001. The conference was organized in co-operation with the World Customs Organization, Interpol and the European Police Office and was hosted by the Swedish Nuclear Power Inspectorate. It focused on measures to reduce the possibility of illegal activities such as theft, sabotage and trafficking, involving nuclear material and other radioactive materials, and on the associated proliferation threat and radiation risks. A concluding document with “Observations, Conclusions and Steps for the Future” was distributed to Member States in August 2001.
4. The Conference noted that over the last twenty years many more nuclear facilities had come into operation and much more nuclear material was in use and storage. The dismantlement of nuclear weapons had contributed substantially to increased inventories of sensitive nuclear materials in peaceful use and storage. The Conference also noted that incidents of illicit trafficking reported during the last decade have prompted a range of initiatives at national and international levels designed to prevent the loss of material and,

where loss occurs, to ensure that measures to recover material are rapidly enacted and that any consequences are mitigated.

5. The Conference:

- Concluded that a comprehensive approach to security of material is warranted, taking into account both the risks for nuclear proliferation through the potential use of nuclear material in nuclear devices and the threat to radiation health and safety. States have the responsibility to ensure that their regulatory systems cover the measures required for prevention, detection and response to threats coming from theft, sabotage or other illegal activities involving nuclear and other radioactive materials;
- Strongly supported initiatives to strengthen the international physical protection regime and encouraged States to become parties to the Convention on the Physical Protection of Nuclear Material;
- Concluded that improved methodology, improved information and improved co-operation with competent national and international organizations would contribute to improving threat assessments and developing security measures;
- Concluded that continued efforts are required at the national and international levels and that increased support is needed for States establishing the necessary technical, administrative and regulatory measures;
- Recognized that the Agency has a key role in supporting State efforts to improve the security of material and combat illicit trafficking by providing guidance and normative documents, promoting technical development and, upon request, assisting States in their implementation.

*Illicit Trafficking Database Programme*

6. The Secretariat is encouraging Member States to participate in the Illicit Trafficking Database Programme and to report all incidents of illicit trafficking in nuclear materials and other radioactive sources that come to their notice. In addition to the 69 States that participate in the programme, some other States have provided information on an ad hoc basis.

7. The database now contains information on over 380 cases of illicit trafficking which were confirmed by Member State Points of Contact. During the last 12-month period, 63 reports were received. Of these, 13 involved nuclear materials, including three incidents with gram-scale quantities of plutonium, while the remaining 50 cases involved other radioactive sources. According to information submitted by the Points of Contact, about 75% of the 63 confirmed cases appear to have happened within a criminal context.

8. In November 2000, a meeting was held with the Points of Contact to review the Illicit Trafficking Database Programme. The meeting pointed to the need to:

- Review the scope of the database;

- Obtain more complete information through follow-up of reported incidents and through co-operation with international law enforcement organizations;
- Modify the database software to allow the input and tracking of incident circumstances, seizure and “after-the-fact” activities;
- Increase the use of electronic communication for reporting and dissemination of information, provided adequate information security arrangements are established;
- Increase efforts to develop a suitable mechanism for characterizing the impact of incidents, considering their nuclear proliferation significance and radiological hazard as appropriate;
- Conduct analysis of selected trafficking cases and use the results as a basis for an annual report on illicit trafficking, including statistics, developments and trafficking patterns and their implications on measures to maintain security of material.

9. An upgraded version of the database software has been developed and implemented. A first and limited version of the revised database and the user software was made available on CD-ROM to Member State Points of Contact for their evaluation.

10. The periodic dissemination of information of confirmed incidents by the Agency to Member States continued. In a first attempt to provide more information on overall patterns in illicit trafficking, a summary report with highlights and trends was included with the annual comprehensive list of confirmed trafficking incidents disseminated earlier this year.

## **INTERNATIONAL INSTRUMENTS**

### *Convention on the Physical Protection of Nuclear Material*

11. The Director General convened in November 1999 an Informal Open-Ended Expert Meeting to Discuss Whether there is a Need to Revise the Convention on the Physical Protection of Nuclear Material (CPPNM).

12. In May 2001, the Expert Meeting adopted its Final Report, in which it concluded that there is “a clear need to strengthen the international physical protection regime” and that a spectrum of measures should be employed — including the drafting of a well defined amendment to strengthen the CPPNM, to be reviewed by States Parties with a view to determine if it should be submitted to an Amendment Conference in accordance with Article 20 of the CPPNM.

13. As indicated in his statement to the June 2001 Board of Governors meeting, the Director General has, in response to that recommendation, decided to convene an open-ended group of legal and technical experts to draft such an amendment; the meeting will take place in Vienna from 3 to 7 December 2001.

14. The Director General also informed the Board that he would carefully review all the recommendations and provide his views on them by September. This is done in GOV/2001/41 and in paragraphs 37 and 38 of this report.

*Code of Conduct on the Safety and Security of Radioactive Source*

15. As forecast in the Action Plan for the Safety of Radiation Sources and the Security of Radioactive Materials, approved by the Board of Governors in September 1999, a Code of Conduct on the Safety of Radiation Sources and the Security of Radioactive Materials was developed and published by the Agency as IAEA/CODEOC/2001. The progress of the Action Plan and the implementation of the Code of Conduct is reported in GOV/2001/29-GC(45)/12.

*UN General Assembly elaboration of an international convention for the suppression of acts of nuclear terrorism*

16. The Secretariat was invited to assist the United Nations Ad Hoc Committee on International Terrorism with the elaboration of a draft convention for the suppression of acts of nuclear terrorism.<sup>1</sup> The Secretariat participated in the 1998 and 1999 meetings of the Ad Hoc Committee within the context of a working group established by the Sixth Committee of the General Assembly, providing information on the Agency's relevant responsibilities and activities. Consultations in the United Nations continue, and the Secretariat stands ready to assist the United Nations in this effort. The Ad Hoc Committee will meet again from 15 to 26 October 2001.

**PROGRESS OF THE AGENCY'S ACTIVITIES TO IMPROVE SECURITY OF NUCLEAR MATERIAL AND OTHER RADIOACTIVE MATERIALS**

*Legal and regulatory framework*

17. While in 2000, Agency legislative assistance to Member States was mostly requested in the areas of radiation safety, nuclear safety and spent fuel and radioactive waste management, during 2001, several requests have been received for the development of legislation governing safeguards and physical protection. In this regard, within the framework of its technical co-operation programme, the Secretariat assists States of Central and Eastern Europe and countries of East Asia and the Pacific in establishing legal frameworks that comply with the basic requirements of relevant treaties, conventions and protocols and relevant international recommendations. A new technical co-operation project on legislative assistance for the countries of the African region was approved for 2001.

*Physical protection of nuclear material*

18. Since 1995, the Secretariat has been organizing, upon request, International Physical Protection Advisory Service (IPPAS) missions for the purpose of reviewing States' physical protection systems implemented at the national and facility levels, thereby helping States identify needs for improvement as well as good practices in implementation. So far, a total of twelve IPPAS missions have been carried out: nine in Central and Eastern Europe, one in Latin America, one in South-East Asia and one in Africa. During the past year, three IPPAS missions (to the Democratic Republic of the Congo, Indonesia and Ukraine) and one preparatory IPPAS mission (Bulgaria) were conducted. In the context of the IPPAS missions, in addition to specific recommendations on the implementation of physical protection,

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<sup>1</sup> See document GC(43)/13, paragraphs 9 to 14.

assessments of national legislation governing the physical protection of nuclear material and nuclear facilities were made and legislative assistance provided.

19. INFCIRC/225/Rev.4 (Corr.) "The Physical Protection of Nuclear Material and Nuclear Facilities" underlines the importance of defining a Design Basis Threat (DBT) as a basis in designing and establishing physical protection to prevent theft of nuclear materials and sabotage of nuclear material and nuclear facilities. The Secretariat, together with Member State experts, has developed a methodology and a workshop curriculum for assisting States in developing their own DBT. Some 20 European Member States have expressed their interest in a national DBT workshop or equivalent training. The first such workshop was convened in Romania and further events are planned in Kazakhstan and Slovakia later this year.

20. A national physical protection workshop was held in Khabarovsk, Russian Federation, in November 2000, in a joint activity with the Federal Republic of Germany. The workshop elaborated on the need for an effective facility level physical protection system based on a developed DBT.

21. The Secretariat and the Russian Federation have developed a joint regional training course on the "Practical Implementation of Physical Protection" to complement other training activities with a more theoretical approach. The first pilot training course was convened in St. Petersburg, Russian Federation, in June 2001.

22. A workshop was held in Lithuania with the objective of providing a forum for bilateral exchange of information on physical protection between Member States with similar national nuclear programmes and similar regulatory infrastructures to facilitate addressing common issues on physical protection.

23. A handbook with practical information on the design, implementation and maintenance of physical protection of nuclear materials and nuclear facilities is being finalized. To further promote the IPPAS service, a public information brochure describing IPPAS activities was issued.

#### *Strengthening State systems for nuclear material control and accounting*

24. An effective State system of accounting for and control of nuclear material (SSAC) is essential for combating illicit trafficking and is an important element in support of physical protection systems. International SSAC courses were organized in August/September 2000 in the Russian Federation and in April/May 2001 in the USA, to provide practical training in the implementation and operation of a SSAC at nuclear power plants and research reactors (Russian course) or at facilities in which nuclear material is processed, with emphasis on low enriched uranium fuel fabrication plants (USA course). The Secretariat also contributed to an SSAC course held in Japan in February/March 2001 for participants from Eastern Europe and the Newly Independent States and to a national SSAC course organized by the Swedish authorities for Ukraine.

25. The Agency's Co-ordinated Technical Support Programme (CTSP) for the Newly Independent States and the Baltic States has been used as a mechanism for co-ordinating bilateral donor State assistance in the establishment and improvement of SSACs. A number of

workshops have been held under this programme: in Uzbekistan in October 2000, in Belarus in June 2000, in Ukraine in March 2001, and in the Russian Federation in June 2001.

26. In 1999, also as a CTSP activity, the Secretariat distributed to the Newly Independent States and the Baltic States, a document with a methodology for a self-assessment of their SSACs. The Secretariat is presently evaluating the responses received and plans to convene meetings with the State authorities to discuss the status of their SSAC and needs for improvement.

27. In order to support Namibia to establish the infrastructure for nuclear material control and protection systems, a preparatory mission was carried out in June 2000 and an initial assessment was made of Namibia's needs for technical, administrative and regulatory systems.

*Addressing illegal activities involving nuclear material or other radioactive material*

28. The ITRAP (Illicit Trafficking Radiation Detection Assessment Programme) project, jointly carried out by the Agency and the Austrian Government, with the support of the Hungarian authorities, was completed and the results presented at an international meeting, organized by the Austrian authorities, in November 2000. The project generated a preliminary set of functional requirements for equipment to be used in radiation monitoring at borders. On the basis of the results of ITRAP, minimum functional requirements for radiation monitoring systems and hand-held devices will be developed and documented. An evaluation of monitoring equipment<sup>2</sup> will help States and international organizations in their selection of equipment for this purpose.

29. ITRAP revealed that further improvements are necessary in the methodology and technology for the detection of nuclear materials at borders. Consequently, the Secretariat has initiated a co-ordinated research programme on "Technical Measures to Detect Illicit Trafficking in Nuclear and Other Radioactive Materials".

30. Upon request by the Republic of Congo, the Agency, with the help of voluntary contributions, assisted in characterizing nuclear material with unknown properties stored in different locations. Assistance was also provided to Ukraine to characterize nuclear material seized in a case of illicit trafficking.

31. The Agency continues to provide training in the detection and response to illicit trafficking of nuclear and other radioactive materials to law enforcement officers in Member States. These projects are being implemented in co-operation with the World Customs Organization, Interpol and the European Commission.

32. In 1999–2000, three one-week training courses focusing on awareness building and basic knowledge in radiation monitoring were organized for customs and police officers. In response to requests for more topical training in country specific issues, the Agency conducted one-week national workshops in Belarus, Kazakhstan and Ukraine and contributed

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<sup>2</sup> Within the ITRAP project, 23 companies of 9 Member States sent equipment to Austria Research Centre for evaluation and testing.

to similar workshops in Argentina and in Egypt. Eleven countries have requested similar workshops.

33. A co-ordination meeting of Heads of Customs of the Newly Independent States and the Baltic States on Combating Illicit Trafficking of Nuclear and Other Radioactive Materials was held in the Russian Federation in April 2001. A new “train-the-trainers course” has been developed jointly with the Russian Federation. The first two courses of this kind took place in June and August 2001 in St. Petersburg.

34. The Agency and the European Commission carried out missions to Estonia, Latvia and Lithuania in June 2001, to assist them in establishing and testing their response plans in the event of seizure of nuclear materials.

*Co-operation with international organizations and other bodies*

35. In order to enhance co-operation with other international organizations which have mandates and an interest in preventing, detecting or responding to illegal cross-border movements of radioactive materials, the Agency will host a meeting of the “Inter-Agency Co-ordination Committee on the Illicit Cross-Border Movement of Nuclear Materials and Other Radioactive Sources” in November 2001. The primary objective will be to further explore the possibilities of sharing the information related to illicit trafficking and to co-ordinate ongoing and future activities in the area.

36. Upon request, the Agency contributes to the “Programme for Preventing and Combating Illicit Trafficking in Nuclear Materials” being implemented by the Group of Eight’s Non-Proliferation Experts Group (NPEG) by, inter alia, maintaining a list of the points of contact whose main function in a crisis situation would be to channel necessary information to senior policy-makers in a timely manner.

## **PLAN OF FUTURE ACTIVITIES**

37. In response to the invitation to the Director General, in Resolution GC/(44)/RES/20, to develop, in consultation and co-ordination with Member States, within available resources, a plan describing the future activities to be undertaken in these areas and a time schedule for their implementation, a Plan of Activities (see Attachment) for the Agency’s Security of Material programme has been drafted. All activities are consistent with the Agency’s Programme and Budget for 2002–2003.

38. In the development of this Plan, primary consideration was given to:

- The Final Report of the Informal Open-Ended Experts Meeting;
- The results of the International Conference on Security of Material;
- Recommendations of the Illicit Trafficking Database Programme review meeting; and
- Recommendations of the IPPAS programme review meeting.

**RECOMMENDED ACTION BY THE BOARD**

39. It is recommended that the Board take note of this document, including the Plan of Activities, and authorize the Director General to transmit it to the General Conference at its forthcoming regular session.

## SECURITY OF MATERIAL PROGRAMME

### PLAN OF ACTIVITIES

#### ACTIVITIES

##### *Planned to be performed within projects defined for the Programme and Budget 2002–2003*

Project: N.1.01: Developing standards for physical protection of nuclear material and nuclear facilities.

*Project duration: 2002–2005.*

*Background information.* INFCIRC/225/Rev. 4 (Corr.)<sup>1</sup> provides internationally used recommendations for physical protection of nuclear material and nuclear facilities, revised from time to time to account for developments in approaches to physical protection and available technology. INFCIRC/225/Rev. 4 (Corr.) introduces a performance based approach to physical protection by introducing a Design Basis Threat as its basis and it includes comprehensive recommendations on the protection of nuclear facilities from sabotage. INFCIRC/225 is a document to be used in conjunction with documents on functional requirements and additional guiding documents. One such technical guidance document has been developed<sup>2</sup>, others need to be developed. *Physical Protection Objectives and Fundamental Principles*<sup>3</sup> have been developed within the context of the Expert Meeting (GOV/2001/41).

##### *Activities to be performed by the Secretariat*

- (1) Publish the Physical Protection Objectives and Fundamental Principles, if endorsed by the Board of Governors.
- (2) Publish the already drafted Handbook on the Physical Protection of Nuclear Materials and Facilities.
- (3) Maintain up to date INFCIRC/225 (*Recommendation 2.1<sup>4</sup> of the Expert Meeting*). With a review cycle of five years, an appropriate time to initiate the next review of INFCIRC/225 may be in 2003. The Secretariat, based on consultations with Member

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<sup>1</sup> See Final Report of the Working Group of the Informal Open-Ended Expert Meeting Working Paper No. 7.

<sup>2</sup> IAEA-TECDOC-967 (Rev.1): Guidance and Considerations for Implementation of INFCIRC/ 225/Rev.4 (Corr.), The Physical Protection of Nuclear Material and Nuclear Facilities.

<sup>3</sup> See Final Report of the Working Group of the Informal Open-Ended Expert Meeting; Working Paper 13, Physical Protection Objectives and Fundamental Principles.

<sup>4</sup> Number refers to Attachment 5 of the Final Report of the Working Group.

States, will then, at an appropriate time, convene an open-ended expert meeting to review INFCIRC/225/Rev. 4 (Corr.).

- (4) Develop documents that will guide States in establishing and maintaining physical protection regulatory and technical systems (*Recommendation 2.1 of the Expert Meeting*): one technical document on the development of a Design Basis Threat and one technical document to give guidance in the establishment of physical protection of nuclear facilities against sabotage.

*Comments on resources:* Regular budget resources have been allocated to cover the major part of these activities. Voluntary contributions will be required at the level projected in the Programme and Budget for 2002–2003 to ensure the participation of Member State experts.

*Project N. 1.02: Providing assistance for the application of standards for physical protection of nuclear material and nuclear facilities in Member States*

*Project duration: 2002–2005.*

*Background information.* The Agency provides assistance to States to implement internationally used standards for physical protection. The International Physical Protection Advisory Service (IPPAS)<sup>5</sup> is an important vehicle for assisting Member States, upon their request, to evaluate physical protection systems, and to identify needs for further assistance. The implementation of IPPAS mission recommendations is the responsibility of the State. The Secretariat may facilitate, by co-ordinating with other Member States, bilateral support for necessary upgrading of physical protection systems.

Training<sup>6</sup> remains fundamental for the implementation of physical protection. Training is presently offered at the international, regional and national levels. While training at the international and regional levels is given in the form of regular training courses, workshops are better suited at the national level. The implementation of INFCIRC/225/Rev. 4 (Corr.) requires additional training.

Technical co-operation Model Project RER/9/060 (Physical Protection and Security of Material) is providing support in physical protection. Legislative assistance in the area of physical protection is provided under projects RER/0/015, RAS/9/023 and RAF/0/015.

***Activities to be performed by the Secretariat***

- (5) Maintain, as an ongoing activity, the IPPAS programme as a core activity in the Agency's programme (*Recommendation 3.1 of the Expert Meeting*).
- (6) Maintain the high quality of IPPAS (*Recommendation 3.2 of the Expert Meeting*). A roster of experienced, well trained legal and technical experts with proven skills will be

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<sup>5</sup> The Final Report of the Working Group of the Informal Open-Ended Expert Meeting; Working Paper No. 8.

<sup>6</sup> The Final Report of the Working Group of the Informal Open-Ended Expert Meeting; Working Paper No. 9: IAEA Physical Protection training programme.

established and used in IPPAS missions and the Secretariat's organizational support will be enhanced to ensure timely submission of mission reports (*Recommendations 3.2, 3.8 and 3.9 of the Expert Meeting*). An orientation training of about two days for experts participating in IPPAS missions is being developed and introduced (*Recommendation 3.7 of the Expert Meeting*).

- (7) Review and publish revised IPPAS Guidelines, taking account of Revision 4 of INFCIRC/225, the experience gained during IPPAS missions and the need for follow-up to the IPPAS recommendations (*Recommendation 3.6 of the Expert Meeting*). In addition, Guidelines will be added for IPPAS missions in States with large nuclear programmes and for the in-depth evaluation of physical protection systems at nuclear facilities, upon request.
- (8) Increase emphasis on follow-up of IPPAS, including in the area of national legal and regulatory infrastructure (*Recommendation 3.4 of the Expert Meeting*). After an IPPAS mission, the State will be offered assistance to develop a "plan of action" for resolving the problems identified during the mission and for implementing recommended actions. IPPAS "follow-up missions" will be offered to States with earlier missions. Actions will be taken to improve interaction and co-ordination with States providing support for physical protection upgrades.
- (9) Encourage States to request more IPPAS mission (*Recommendation 3.3 of the Expert Meeting*) by developing IPPAS promotional information to increase States' confidence in the IPPAS service, including improving the Secretariat's web-page on physical protection and producing a video as a complement to the IPPAS brochure.
- (10) Actions will be taken to improve the use of IPPAS results (*Recommendation 3.10 and Recommendation 3.5 of the Expert Meeting*). The Secretariat will consult with Member State experts on how IPPAS mission findings (good practices and recommendations for improvements) may be documented and used to better understand the nature and extent of physical protection problems and how they may be addressed. The consultations will also include the content of and advisability of a possible annual report in physical protection as well as questions related to the maintaining of confidentiality and format of information. If so agreed, activities will commence to define and implement a suitable system.
- (11) Develop an outline of a comprehensive physical protection training programme, and provide information thereof to Member States.
- (12) Develop, as resources allow, a curriculum for additional physical protection training in one or more of the following subjects: "Implementation of INFCIRC/225/Rev. 4 (Corr.)"; "Introduction to IPPAS" for new IPPAS experts; "Effectiveness Evaluation of Physical Protection Systems"; "Physical Protection of Nuclear Facilities Against Sabotage", "Physical Protection of Nuclear Material in Transport", "Introduction to Physical Protection" for policy makers and facility managers; and a workshop dealing with co-operation of response forces in neighbouring States (*Recommendation 4.1, 4.4 and 4.6 of the Expert Meeting*).

- (13) Develop and implement a mechanism to periodically evaluate the training effectiveness, including feedback from Member States on the usefulness of the training received (*Recommendation 4.3 of the Expert Meeting*).
- (14) Develop and implement a database for tracking of training provided and of individual training recipients (*Recommendation 4.5 of the Expert Meeting*).

*Comment on resources:* The implementation of these activities is subject to funds available. With presently available resources, two, at best three, IPPAS missions may be carried out annually and the present limited training programme maintained. Voluntary contributions will be required at the level projected in the Programme and Budget for 2002–2003.

*Project N.1.03: Developing norms and guidelines for nuclear material accounting and control.*  
*Project duration: 2002–2005.*

*Background information.* State systems of accounting for and control of nuclear material (SSAC) are fundamental to States' ability to fulfil their international obligations, be it in safeguards agreements with the Agency, in the CPPNM, in bilateral supply and co-operation agreements or in export control arrangements, or to implement INFCIRC/225/Rev. 4 (Corr.). While INFCIRC/153 provides functional requirements for an SSAC, further guidance documents are not available or are outdated. Such guidance is necessary as a basis for the establishment of new or the improvement of existing SSACs. An initial document for the purpose of self-assessment of an SSAC has been developed and distributed to the Newly Independent States<sup>7</sup> and the Baltic States. Other States may benefit from the use of such a document.

***Activities to be performed by the Secretariat***

- (15) Develop an updated technical document giving practical guidance on the establishment of an SSAC, including at the State level (administrative and regulatory systems) and at the facility level (technical and administrative systems).
- (16) Develop a comprehensive document for the self-assessment of SSACs.

*Comments on resources:* Regular budget resources have been allocated to cover the major part of these activities. Voluntary contributions will be required at the level projected in the Programme and Budget for 2002–2003 to ensure the participation of Member State experts.

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<sup>7</sup> The Newly Independent States are: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

Project N.1.04: Providing assistance for the application of norms and guides for nuclear material accountancy and control in Member States.

*Project duration: 2002–2005.*

*Background information.* States are requesting assistance for the establishment of the nuclear material control infrastructure necessary to fulfil related international undertakings. The Agency has a long-time tradition in providing SSAC courses aimed at familiarizing States' personnel in the requirements of and functions of an SSAC and assists, upon request, States in strengthening their SSACs. The Co-ordinated Technical Support Programme<sup>8</sup> is to provide co-ordination services for bilateral support to the Newly Independent States and Baltic States in their establishment of SSACs. Technical co-operation projects RER/0/017 (for States in Central and Eastern Europe) and NAM/3/003 (for Namibia) provide support for the establishment of the necessary nuclear material control infrastructure.

***Activities to be performed by the Secretariat***

- (17) Assist States, upon request, with evaluation of their State system for accounting and control of nuclear material, and the associated regulatory, administrative and technical systems and provide, upon request, expert advice and technical support for its establishment or strengthening. Develop guidelines for such evaluation.
- (18) Convene international, regional and national workshops for nuclear material accounting and control at State and facility levels.
- (19) Maintain the Co-ordinated Technical Support Programme to provide co-ordination services for bilateral support to the Newly Independent States and the Baltic States for the establishment and implementation of their SSACs.

*Comments on resources:* The implementation of these activities is subject to available resources. Voluntary contributions will be required at the level projected in the Programme and Budget for 2002–2003.

Project N.2.01: Developing methodologies, technologies and guides for detection of and response to illegal activities involving nuclear and other radioactive materials

*Project duration: 2002–2005.*

*Background information.* During recent years, increased attention has been given to the detection at borders of attempts to smuggle nuclear and other radioactive material and to the response to the seizure of such materials. Member States request assistance in the establishment of equipment at borders and manuals for response actions. Internationally accepted guidelines for capabilities for detection at borders are not available. The ITRAP project generated a first set of functional specifications for equipment used for radiation monitoring at borders, and revealed that further development of the available technology is

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<sup>8</sup> Final Report of the Working Group of the Informal Open-Ended Expert Meeting; Working Paper 14, *Co-ordinated Technical Support Programme*.

warranted. A co-ordinated research programme has been initiated to provide a forum for co-ordination among States for development activities in this area.

***Activities to be performed by the Secretariat***

- (20) Develop a document outlining a comprehensive approach to prevention, detection and response to illegal activities involving nuclear and other radioactive materials, identifying the regulatory, administrative and technical elements that are necessary for effective prevention, detection and response.
- (21) Develop a document with recommendations on capabilities required at borders, within the State and at a regional level for the detection and identification of radioactive material in nuclear smuggling.
- (22) Commence the co-ordinated research programme to promote the development of improved methodology and technology used in detection and response to illicit trafficking, including procedures to qualify analytical laboratories for advanced analytical work to characterize seized radioactive materials.

*Comments on resources:* The implementation of these activities is subject to available resources. Voluntary contributions at a level projected in the Programme and Budget for 2002–2003 will be required.

*Project N.2.02: Providing assistance to Member States in their application of methodologies, technologies and guides for detection of and response to illegal activities involving nuclear and other radioactive materials.*

*Project duration: 2002–2005.*

*Background information.* To provide assistance to Member States in their application of the methodologies, technologies and guides developed in N.2.01, the Agency has initiated a programme, together with the World Customs Organization and Interpol, for the training of law enforcement officers in the detection and response to illicit trafficking. There is an increase in the demand for training, in all regions, as well as of requests for assistance in the establishment of detection systems at borders. Technical co-operation Project RER/9/060 provides such training.

***Activities to be performed by the Secretariat***

- (23) Perform, on request, evaluation of the detection capabilities in a State, and provide recommendations for improvements. Develop evaluation guidelines.
- (24) Develop an outline of a comprehensive training programme for the detection and response to illicit trafficking in nuclear and other radioactive materials at a regional as well as a national level, and aim at bringing together different competencies required to address the issues. Emphasis will be given to “train the trainers” courses. The programme should identify training offered bilaterally, or by another international organization, in order to promote transparency and to avoid duplication of efforts.

- (25) Develop and document the training curriculum for the new training to be offered by the Agency.
- (26) Identify, through inter-laboratory tests, according to procedures developed under N.2.01, laboratories qualified to perform advanced analysis of nuclear and other radioactive materials seized in trafficking.
- (27) Conduct, during 2002, a major meeting on advanced non-destructive and destructive analysis of nuclear and other radioactive materials.

*Comment on resources:* The implementation of these activities is subject to funds available. Voluntary contributions will be required at the level projected in the Programme and Budget for 2002–2003.

*Project N.2.03. Provision of consolidated information on illicit trafficking*

*Project duration: ongoing.*

*Background information.* The Secretariat has been implementing, since 1995, the Illicit Trafficking Database Programme<sup>9</sup>. Member State representatives and Points of Contact have requested improvement and enhancement of the database programme, including the analysis of data contained to increase awareness of problems and as input to activities aimed at combating illicit trafficking. Co-ordination of information and activities between different databases that may contain similar information for different purposes is required. The voluntary reporting on illicit trafficking does not include attempts of thefts, sabotage of nuclear facilities or threats or attempts thereof.

***Activities to be performed by the Secretariat***

- (28) Continue to maintain the Illicit Trafficking Database Programme (*Recommendation 1.1 of the Expert Meeting*). Actions will be taken to improve the completeness of information, in particular for the more proliferation significant cases, by more systematic follow-up of initial State reports and unconfirmed media trafficking reports, and expanded interaction with the World Customs Organization and Interpol.
- (29) Commence a more systematic analysis of information in the database, in particular for the more proliferation significant cases, and disseminate the results in an annual report on illicit trafficking (*Recommendation 1.2, 1.4 of the Expert Meeting*).
- (30) Review, in consultation with Member State experts and Points of Contact, the definition of “illicit trafficking” in the light of all relevant input received from Member State experts and Points of Contacts with a view of clearly distinguishing between cases with a proliferation concern and a radiation health and safety concern, as well as clarifying

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<sup>9</sup> The Final Report of the Working Group of the Informal Open-Ended Expert Meeting; Working Paper No. 6; Illicit Trafficking Database Programme.

the context in which the cases are to be reported (*Recommendation 1.5 and 1.6 of the Expert Meeting*).

- (31) Review possibilities to improve and facilitate, by using electronic means of communication, the dissemination of information generated within the Illicit Trafficking Database Programme, thereby balancing the legitimate need for a complete knowledge base with equal legitimate needs of maintaining confidentiality of information and keeping the general public informed (*Recommendation 1.7 of the Expert Meeting*).
- (32) Initiate a discussion with Member States on the possibilities of expanding the information available in the Secretariat to have a better basis for its activities within the programme on Security of Material, with relevant information on incidents of attempted thefts, communicated threats, and acts of sabotage and threats thereof.
- (33) Investigate possible mechanisms to assess cases of illicit trafficking in nuclear materials and other radioactive materials, in co-operation with Member State experts and with due account of the use of assessment scales already available.

*Comment on resources:* The implementation of these activities is subject to available resources. Presently available regular budget resources do not allow the necessary improvements of the database and analysis. Voluntary contributions will be required at the level projected in the Programme and Budget for 2002–2003.

*Project N.2.04: International co-operation on the security of nuclear and other radioactive materials.*

*Project duration: Ongoing.*

*Background information.* The Secretariat regularly interacts with other international organizations with a responsibility or interest in the illicit trafficking in nuclear and other radioactive materials. A Memorandum of Understanding serves as the basis for the Agency's interaction with the World Customs Organization. An *Inter-Agency Co-ordination Committee on the Illicit Cross-Border Movements of Nuclear Materials and Other Radioactive Sources* meets on an annual to biannual basis. The meetings provide a forum for exchange of information and for elaboration of results of joint activities and co-operative efforts.

***Activities to be performed by the Secretariat***

- (34) Maintain the present mechanisms for co-operation with other international organizations.
- (35) Increase co-operation with Interpol for the purpose of evaluating incidents of illicit trafficking in nuclear and other radioactive materials.

*Comments on resources:* The Secretariat highly values the interaction with other international organizations. However, the implementation of these activities is subject to available resources.