

IAEA Board of Governors

Record of the 3rd Meeting of the Advisory Committee on Safeguards and
Verification within the Framework of the IAEA Statute
GOV/COM.25/OR.3

(Click the link below to go directly to the NAM statement)

Review and improvement of the effectiveness and efficiency of the safeguards
system (Malaysia)

Board of Governors

GOV/COM.25/OR.3

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Advisory Committee on Safeguards and Verification within the Framework of the IAEA Statute

Record of the 3rd Meeting

Held at Headquarters, Vienna, on Tuesday, 17 January 2006, at 3.05 p.m.

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¹ GOV/COM.25/4.

Attendance

(The list below gives the name of the senior member of each delegation who attended the meeting, as well as that of any other member whose statement is summarized in this record.)

Ms. FEROUKHI		Chairperson (Algeria)
Mr. FASSIH	_____	Algeria
Ms. KELLY	}	Argentina
Ms. WILKINSON		
Ms. STOKES	}	Australia
Mr. BEVEN		
Mr. SYCHOV		Belarus
Ms. CLAEYS		Belgium
Mr. VIEIRA DE SOUZA	}	Brazil
Ms. RICHTER RIBEIRO MOURA		
Ms. GERVAIS-VIDRICAIRE		Canada
Mr. YANG Dazhu		China
Mr. SERRANO CADENA	}	Colombia
Ms. QUINTERO CORREA		
Ms. GOICOCHEA ESTENOZ	}	Cuba
Mr. CODORNIU PUJALS		
Mr. MOREJÓN-ALMEIDA	}	Ecuador
Mr. GARCÉS-BURBANO		
Mr. KAHLIL		Egypt
Mr. DENIAU		France
Mr. SANDTNER		Germany
Mr. CRICOS		Greece
Mr. SHARMA		India
Ms. LISTYOWATI		Indonesia
Mr. AMANO		Japan
Mr. LEE Key-Cheol		Korea, Republic of
Mr. TAJOURI		Libyan Arab Jamahiriya
Ms. VIKØY		Norway
Ms. ARAÚJO		Portugal
Mr. BERDENNIKOV		Russian Federation
Ms. YEW		Singapore
Mr. MACHÁČ		Slovakia
Mr. STRITAR		Slovenia
Mr. WRIGHT		South Africa
Ms. WIJEWARDANE		Sri Lanka
Ms. GUSTAFSSON		Sweden
Mr. GHANEM		Syrian Arab Republic
Mr. TULEY		United Kingdom of Great Britain and Northern Ireland
Mr. NOBLE	}	United States of America
Ms. HILLIARD		
Ms. GARCÍA de PÉREZ		
	_____	Venezuela, Bolivarian Republic of

Attendance (continued)

Mr. ELBARADEI
Mr. HEINONEN

Ms. COOLEY

Mr. RAUF

Mr. ANING

Director General
Deputy Director General, Department
of Safeguards
Director, Division of Concepts and
Planning
Office of External Relations and
Policy Coordination
Secretary of the Committee

Representatives of the following Member States also attended the meeting:

Afghanistan, Albania, Angola, Armenia, Austria, Azerbaijan, Bolivia, Bulgaria, Burkina Faso, Chile, Croatia, Czech Republic, Denmark, Estonia, Finland, Holy See, Hungary, Iceland, Islamic Republic of Iran, Israel, Italy, Jordan, Kenya, Kuwait, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Malaysia, Malta, Mexico, Morocco, Netherlands, New Zealand, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Romania, Saudi Arabia, Serbia and Montenegro, Spain, Switzerland, Thailand, Tunisia, Turkey, Ukraine, Zimbabwe.

Abbreviations used in this record:

Committee 24	Committee on Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System
EFTA	European Free Trade Association
GRULAC	Latin American and Caribbean Group
HEU	high-enriched uranium
NAM	Non-Aligned Movement
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NPT Review Conference	Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons
NSG	Nuclear Suppliers Group
NWAL	Network of Analytical Laboratories
R&D	research and development
SAGSI	Standing Advisory Group on Safeguards Implementation
SAL	Safeguards Analytical Laboratory
SQP	small quantities protocol
SSAC	State system of accounting for and control of nuclear material
Trilateral Initiative	Trilateral Initiative launched by the Minister of the Russian Federation for Atomic Energy, the Secretary of Energy of the United States and the Agency's Director General on 17 September 1996 to consider practical measures for the application of IAEA verification to fissile material originating from nuclear weapons

* Speakers under Rule 50 of the Provisional Rules of Procedure are indicated by an asterisk.

– **Adoption of the agenda**
(GOV/COM.25/3/Rev.1)

1. The CHAIRPERSON recalled that at the previous meetings of the Advisory Committee on Safeguards and Verification on 11 November 2005 delegations and regional groups had set out a wide range of views on the priority issues that the Committee should address. She had subsequently held informal consultations with all regional groups and interested delegations with a view to establishing, not a work programme for the entire year, but an agenda for the Committee's current set of meetings. The consultations had indicated that there was broad support for an item on review and improvement of the effectiveness and efficiency of the safeguards system, a general subject that would nevertheless encompass more specific issues. A second item covered the scheduling of future meetings and funding of the Committee.
2. She assumed that the Committee wished to adopt the provisional agenda as set out in document GOV/COM.25/3/Rev.1.
3. The agenda was adopted.

1. Review and improvement of the effectiveness and efficiency of the safeguards system

(a) Conclusion of safeguards agreements and additional protocols

4. The representative of MALAYSIA*, speaking on behalf of NAM, said that in order to review the safeguards system and assess the measures needed to improve its efficiency, it was necessary to identify the gaps and obstacles in implementing pertinent resolutions of the General Conference and decisions of the Board of Governors. The Advisory Committee must discuss extensively all aspects of the item currently before it in order to reach balanced and applicable conclusions and/or recommendations. Accordingly, NAM requested the Secretariat to prepare, before the next session of the Committee, a written presentation and the necessary documentation on the status of implementation of previous resolutions, identifying any gaps or obstacles and also possible ways of addressing them. In addition, the Secretariat should provide the necessary documentation at least 15 days prior to the meeting, so as to enable Member States, including those in NAM, to prepare in advance and refer to their capitals. That had not been the case for the current meeting.
5. It was important that the current meeting decide the agenda for the Committee's next meeting. She underlined the need to keep a balanced approach with respect to the Agency's activities and ensure that verification activities were not carried out at the expense of technical cooperation activities.
6. NAM was pleased to note that, from 16 to 20 October 2006, the Agency would be holding an international safeguards symposium on addressing verification challenges. It encouraged the Secretariat to facilitate the participation of experts from developing countries by making funds

available to help meet the cost of attendance. Further symposia should be held to enhance appreciation of current challenges to the safeguards system and to strengthen safeguards practices and approaches.

7. The CHAIRPERSON, explained that documents had not been submitted prior to the current meeting owing to time constraints. In future they would be prepared well in advance so that delegations could participate in the meetings effectively. Likewise, time constraints had prevented the inclusion on the current agenda of a review of the implementation of resolutions and decisions by the General Conference and the Board relating to improving the effectiveness and efficiency of the safeguards system.

8. The HEAD OF THE VERIFICATION AND SECURITY POLICY COORDINATION SECTION, OFFICE OF EXTERNAL RELATIONS AND POLICY COORDINATION gave a presentation entitled *Conclusion of Safeguards Agreements and Additional Protocols*².

9. The representative of CHILE*, speaking on behalf of GRULAC, said the Group wished to participate constructively in the Committee's work and urged that the suggestions made in the Group's statement on 11 November 2005 be taken into consideration.³ He reiterated that an appropriate balance should be maintained among the Agency's activities and that for GRULAC member countries technical cooperation activities were of particular importance. Also, the Committee's work should not duplicate the role of the Board of Governors, the Secretariat or SAGSI; hence the need for the Committee to define its work programme and the specific issues it would consider.

10. It would be useful to know what experience had been gained in implementing safeguards so that the Agency could identify and address existing gaps or shortcomings in the system.

11. The delay in provision of documentation for the meeting prevented GRULAC from giving a considered opinion on the issues. Nevertheless, it was fully prepared to cooperate actively provided no additional financial commitments were involved.

12. The representative of JAPAN said it was appropriate for the Committee to deliberate on how to achieve universalization of the additional protocol, which was the most effective way of improving the safeguards system as a whole. The international community must further strengthen its political will towards that end. At the same time, every effort should be made to provide assistance to countries willing to conclude additional protocols but experiencing technical difficulties in doing so. Japan was firmly committed to maintaining the current momentum towards universalization of the additional protocol and to taking any initiative emphasizing the urgency of wider adherence by countries to that instrument.

13. The representative of GERMANY said that, although the current situation was not optimal, the overall picture was not as bleak as sometimes described. Some progress had been made, and Germany hoped it would continue. The key States were those categorized as having significant nuclear activities. It was important that all of the 71 existing States with significant nuclear activities had NPT safeguards agreements. While nearly two-thirds of those States had additional protocols in force, the remaining third did not. Nine years after approval of the additional protocol by the Board of Governors, that was not an optimal situation and efforts should be concentrated primarily on those States. States with no significant nuclear activities would be less reluctant to conclude safeguards agreements and additional protocols once States with significant nuclear activities had fulfilled their obligations.

² Attached as Annex 1.

³ See GOV/COM.25/OR.1, paras 25–29.

14. The representative of CANADA commended the steady progress that had been made towards the universalization of safeguards agreements and additional protocols. The Agency safeguards system, including the additional protocol, laid the groundwork for disarmament and the total elimination of nuclear weapons, to which all States party to the NPT were committed. She expressed concern that some 27 NPT States Party, including several members of the Agency, had yet to comply with the basic requirement to accept safeguards under Article III of the Treaty. Moreover, acceptance of the additional protocol was disappointingly slow. While 71 States now had additional protocols in force, 121 did not, including 26 States with significant nuclear activities, 2 nuclear-weapon States and 4 States Party to the NPT. Canada called on all States which had not yet done so to submit all their nuclear activities, both current and future, to Agency safeguards.

15. While the Secretariat's outreach efforts, including legislative assistance and training offered to SSACs, were laudable, greater efforts to improve the efficiency and effectiveness of the safeguards system would encourage wider acceptance of safeguards. By paving the way for integrated safeguards, the additional protocol should over time lighten the burden on both the Secretariat and States with additional protocols in force and about which a State-level conclusion had been drawn. Comprehensive INFCIRC/153-type safeguards had proved valuable in verifying the non-diversion of declared nuclear material but provided only a limited assurance about the absence of undeclared material and activities. The Agency could provide credible assurances only if comprehensive safeguards were supplemented by additional protocols. That was now the verification standard and should also become the new condition of supply. Thus, Canada endorsed Agency resolutions and all efforts aimed at universalization of the comprehensive safeguards agreement and the additional protocol.

16. At future meetings, the Committee should concentrate, through focused work aimed at making concrete recommendations to the Board, on ways and means of strengthening the safeguards system, including enhanced inspection and verification activities where needed. Such efforts were all the more important in the light of recent challenges to the nuclear non-proliferation regime.

17. The representative of CHINA said that his delegation was prepared to work with others to promote the universal implementation of safeguards agreements and additional protocols and to enhance the effectiveness and efficiency of the Agency's safeguards system. Safeguards agreements and additional protocols were important legal instruments whereby the Agency discharged its verification functions. Their universalization was of great importance for strengthening the Agency's safeguards system. In recent years the Secretariat had achieved a significant increase in the number of countries with comprehensive safeguards agreements and additional protocols in force. More countries, particularly those with significant nuclear activities, should be encouraged to sign, ratify and implement those instruments without delay and China saw a role for the Committee in that regard. China was in favour of the Secretariat organizing activities to that end in 2006 and hoped it would keep the Committee and the Board informed of progress made.

18. The representative of BELARUS expressed support for the Secretariat's efforts to promote the conclusion of safeguards agreements and additional protocols. Belarus was committed to strengthening the international nuclear non-proliferation regime and consistently fulfilled its obligations under the NPT. At the same time it was interested in maintaining the necessary balance between the Agency's verification activities and its efforts to promote the peaceful uses of atomic energy. A necessary precondition for such efforts was respect for the inalienable right of non-nuclear Member States to carry out peaceful nuclear activities with non-proliferation obligations going hand in hand with international efforts to achieve nuclear disarmament.

19. It was important for the Committee to have a clear conception of the issues that it was to discuss in 2006 and to formulate recommendations, within the framework of the existing international legal

instruments, that would not stand in the way of Member States' economic and technological development or international nuclear cooperation.

20. The representative of CUBA said that her delegation concurred that, in order to carry out a serious analysis of the efficiency of the safeguards system and to take decisions thereon, it was essential to start with a detailed review of implementation of the relevant General Conference resolutions.

21. The information needed for the most basic preparation for holding a truly productive session had not been provided in advance; no document had been issued under sub-item 1(a), while for sub-item 1(b), document 2006/Note 2 had been circulated only a few days beforehand, and then only in the English language. Her delegation would in future oppose the convening of Committee meetings if documentation was not provided in advance in all the official languages. In view of the foregoing, Cuba was unable to make any assessment or support any decision proposed under agenda item 1(a).

22. The representative of BRAZIL said the Agency's verification system should be strengthened in a manner that did not hamper promotion of the peaceful uses of nuclear energy in Member States, in conformity with Article IV of the NPT. In that regard, the international community should strive to achieve progress on both disarmament and non-proliferation, which were intertwined objectives. Focusing only on the latter would not contribute to international efforts towards a more secure and peaceful world.

23. The status of comprehensive safeguards agreements and additional protocols was a matter to be decided by the NPT Review Conferences. It was unfortunate that the 2005 NPT Review Conference, held under Brazil's presidency, had failed to achieve good results and that the High-level Plenary Meeting of the General Assembly in September 2005 had failed to reach consensus on the final text of an agreement on disarmament and non-proliferation.

24. Taking note of the Secretariat's efforts to promote the adoption by all States of safeguards agreements and additional protocols, she requested information on the status of additional protocols in those countries that had voluntarily offer agreements and INFCIRC/66-type agreements, since they had not been included in the Secretariat's presentation. Her delegation also wished to know whether those States fell within the category of 'States with significant nuclear activities'.

25. The representative of AUSTRALIA said that his country placed particular importance on ensuring that the Agency had uniform legal authority with respect to the application of safeguards in States. It would be appropriate for the Committee to consider what further action the Board and Member States might take to that end.

26. The assurance provided by Agency safeguards was a consequence of safeguards undertakings by a particular State. The greater the undertaking by a State, the greater the Secretariat's authority to perform safeguards activities and the broader the safeguards conclusions that the Secretariat would be able to reach. The highest level of assurance was possible where a State had in place both a comprehensive safeguards agreement and an additional protocol. In such cases, the Secretariat would be able to conclude that all nuclear material in the State in question had remained in peaceful use and that there were no indications of undeclared nuclear material and activities. Where there was a comprehensive safeguards agreement but no additional protocol, only a lower level of assurance was possible. If the comprehensive safeguards agreement was being implemented satisfactorily, the Secretariat would be able to conclude that declared nuclear material had remained in peaceful use but would not be able to draw any general conclusion as to the absence of undeclared nuclear materials and activities. In the case of States that were required to conclude a comprehensive safeguards agreement but had not yet done so, no safeguards conclusion was possible.

27. It was unsatisfactory to have such a range of possible safeguards conclusions for States that shared a common legal status as non-nuclear-weapon States Party to the NPT. They should share a common basis for safeguards implementation and the drawing of safeguards conclusions, which would require the Agency to have uniform legal authority with respect to them. To achieve that, the Agency and Member States should promote the conclusion of both a comprehensive safeguards agreement and an additional protocol. Australia appreciated the work done by the Secretariat to date to that end, particularly under its Plan of Action to Promote the Conclusion of Safeguards Agreements and Additional Protocols. Much, however, remained to be done. The Agency was dependent on action by States; those yet to conclude a comprehensive safeguards agreement and/or an additional protocol should do so without further delay. Moreover, further to the Board's agreement in September 2005 to draw up a revised standardized SQP text, States with an SQP should promptly conclude the revised SQP, as well as an additional protocol if they had not already done so.

28. The Secretariat had observed in its February 2005 update of the Action Plan that its efforts had been most successful where it had been able to apply a country-specific approach and had noted the importance of extrabudgetary funding. It had also identified obstacles to the conclusion of additional protocols and comprehensive safeguards agreements.

29. Australia proposed that the Committee consider recommending that the Board take the following steps: reiterate the importance of establishing uniform legal authority in support of strengthened safeguards; call upon States that had not yet done so to conclude additional protocols and comprehensive safeguards agreements, and for SQP States to adopt the revised SQP; express its strong support for the Secretariat's outreach, training and assistance efforts, as reflected in the Action Plan; express its support for the provision of further Regular Budget funds for those efforts; and, call upon Member States to support those efforts both through the Secretariat and directly with other States, through encouragement, assistance and the sharing of experience.

30. The representative of ARGENTINA reiterated her delegation's call for prudence in addressing the need to review the Agency's legal mandate, the timeliness of reviewing the effectiveness of safeguards in general and also the budgetary implications of those activities. It was important to continue analysing the scope of the Committee's mandate, particularly with regard to the reports and recommendations that it would submit to the Board of Governors.

31. It was also important that the Agency have sufficient experience in the application of strengthened safeguards, particularly the additional protocol and integrated safeguards, before seeking to further strengthen the system. A written report by the Secretariat on its experience in that regard would therefore be valuable.

32. The representative of INDONESIA, having reaffirmed the Agency's importance as the sole competent authority for nuclear verification within the framework of the Agency's safeguards system, expressed appreciation for its efforts to strengthen that system. Her delegation was confident that the Agency was capable of meeting the safeguards and verification challenges ahead.

33. The additional protocol was the cornerstone of the Agency's efforts to strengthen the effectiveness of the safeguards system. It was needed to provide credible assurance regarding the non-diversion of nuclear materials and the absence of undeclared nuclear materials and activities. Her delegation noted with satisfaction the positive developments regarding the status of safeguards agreements and additional protocols.

34. The Committee's task was to adopt recommendations for concrete actions that led to effective and strengthened safeguards and verification. It must address the challenges in a focused, meaningful and timely manner, responding to the priorities and concerns of all Member States. It might also be

useful for the Committee to identify gaps in the safeguards and verification system and find ways of bridging them.

35. Her delegation welcomed the Note by the Secretariat contained in document 2006/Note 2. The analytical capabilities elaborated in that document, together with the experience accumulated by existing Agency mechanisms, such as SAGSI, would serve as a good basis for the Committee's future deliberations. The proposals contained in the document deserved further consideration by all Member States.

36. Indonesia endorsed NAM's view that it would be useful to review the implementation of pertinent resolutions and decisions of the Agency's governing bodies That would ensure that Member States' priorities and concerns were reflected in the Committee's decisions and recommendations for action. The safeguards system should be strengthened in a way that did not entail any decrease in the resources available for technical assistance and in a way that was compatible with the Agency's function of encouraging and assisting, through adequate technology transfer, in the development and application of atomic energy for peaceful uses.

37. The Secretariat should intensify its efforts to develop proposals for a more cost-effective safeguards system that did not impose any additional financial burden on Member States, particularly developing countries.

38. The representative of AUSTRIA*, speaking on behalf of the European Union, said that the acceding countries Bulgaria and Romania, the candidate countries Croatia and Turkey, the countries of the Stabilisation and Association Process and potential candidates Albania and Serbia and Montenegro, the EFTA countries Iceland and Norway and members of the European Economic Area associated themselves with his statement.

39. The European Union supported the early conclusion of comprehensive safeguards agreements and universalization of the additional protocol. Comprehensive safeguards agreements together with additional protocols constituted the current Agency verification standard and it was only through those instruments that Agency safeguards could provide credible assurances regarding both the non-diversion of nuclear material placed under safeguards and the absence of undeclared nuclear materials and activities in States. Universalization of the additional protocol would therefore strengthen the international nuclear non-proliferation and disarmament regime and would contribute to the security of all States.

40. Universalization of the additional protocol was a key component in the European Union's strategy against the proliferation of weapons of mass destruction. The European Union had adopted a joint action on support for Agency activities, which inter alia provided legislative assistance for the implementation of the additional protocol. The European Union would welcome further development by the Agency of relevant programmes. In addition, the Committee should address the process of transition to integrated safeguards.

41. The provision of or access to state-of-the-art technology was key to the sustained reliability and credibility of Agency safeguards. The European Union therefore welcomed the Secretariat's intention, as laid down in document 2006/Note 2, to examine new technological solutions aimed at strengthening the effectiveness and efficiency of safeguards, and expected that the application of new technological solutions would help reduce safeguards costs. A clearer picture of the financial implications of those proposals would be helpful. Some of the measures identified clearly depended on the willingness of Member States to provide the Agency with appropriate access to data. The European Union therefore called on all States to cooperate with the Secretariat to the greatest extent possible in order to achieve the common goal of a strengthened safeguards system.

42. To facilitate informed debates in the Committee, the European Union would appreciate the early provision of documentation for future meetings.

43. The representative of the REPUBLIC OF KOREA welcomed the Agency's efforts to encourage wider adherence to the safeguards system and noted with satisfaction the substantial progress made in 2005 in terms of the universalization of comprehensive safeguards agreements and additional protocols.

44. The Republic of Korea, as the 39th country to bring an additional protocol into force, had gained unique experience that demonstrated the usefulness of the additional protocol as a tool for the detection of possible undeclared material and activities.

45. He expressed concern that the number of States with an additional protocol signed or approved but not yet in force had been increasing. In that regard, the Republic of Korea fully supported the activities planned for 2006 as set out in the Secretariat's presentation and called on Member States that had not yet done so to sign and ratify a comprehensive safeguards agreement and an additional protocol.

46. The representative of NORWAY commended the Agency's efforts to universalize the additional protocol through its outreach programme and Action Plan. Her delegation felt it appropriate that the Committee identify ways to support that work. The discussions that had taken place during the Committee's first meeting in November 2005 had been extremely useful and Norway welcomed the consensus on the Committee's work.

47. The strengthening of the safeguards system was needed more than ever before. Norway welcomed the revised SQP, which required States to allow inspections even of small quantities of nuclear material. Her country looked forward to the Director General's report on that subject in June 2006.

48. Verification was a responsibility for nuclear-weapon as well as non-nuclear-weapon States. Norway hoped that, in future, the Committee would be able to assess ways of further strengthening voluntary safeguards and verification in nuclear-weapon States, including those not party to the NPT. The aim must be to support a larger amount of fissile material under safeguards. The credibility of the international verification regime would be greatly enhanced if the nuclear-weapon States separated their civilian and military sectors and placed their civilian HEU and plutonium under safeguards. In that regard, broader implementation of the Trilateral Initiative would be helpful. Also, Norway was in favour of the Committee examining the Agency's special inspections capacity.

49. The representative of the LIBYAN ARAB JAMAHIRIYA said that the most desirable ultimate objective was the complete elimination of nuclear weapons, but that depended on the nuclear-weapon States. He underscored the need to ensure the universalization of comprehensive safeguards agreements and strengthening of the international non-proliferation regime. Libya encouraged the Secretariat to spare no effort in working with States that had not yet done so to enter into safeguards agreements without delay, particularly in view of the fact that more than 20 Member States still had not signed a comprehensive safeguards agreement. Libya had signed both a comprehensive safeguards agreement and an additional protocol, the latter having entered into force following Libya's announcement of its voluntary decision to renounce its nuclear weapons related programmes.

50. Libya endorsed NAM's request for the Committee's agenda to include an item on the review of relevant decisions and resolutions adopted by the Board of Governors and the General Conference and their implementation and hoped that it would appear on the agenda of the Committee's next meeting.

51. It was regrettable that the documents before the Committee had been issued so late; the Arabic language versions had been made available only on the morning of the meeting. In future, the Secretariat should provide documents in all official languages on time to allow Member States to prepare adequately for meetings.

52. While pledging Libya's full cooperation to the work of the Committee, he said care should be taken not to detract from the importance of technical cooperation and the need to promote the peaceful uses of atomic power. The developing countries stood to gain the most from such cooperation.

53. The representative of SOUTH AFRICA welcomed the steps being taken to strengthen the Agency's safeguards system and joined others in urging States that had not yet done so to conclude safeguards agreements with the Agency without delay. The additional protocol was a valuable instrument in building confidence in the peaceful application of nuclear energy. The conclusion and implementation of safeguards agreements and additional protocols were essential for effective verification. However, it was important to avoid the adoption of new measures that would restrict the inalienable right of States to verifiably use nuclear energy for peaceful purposes. South Africa continued to believe that efforts towards the goals of nuclear disarmament and nuclear non-proliferation were mutually reinforcing processes.

54. The representative of the UNITED STATES OF AMERICA welcomed the fact that the review and improvement of the effectiveness and efficiency of the safeguards system had appeared as the first item on the agenda.

55. The conclusion by all countries of a safeguards agreement, as well as an additional protocol or modified SQP, was a basic criterion that must be met if the Committee were to be successful in identifying ways to strengthen safeguards. It was encouraging that the Secretariat had made so much progress in implementing the Plan of Action to Promote the Conclusion of Safeguards Agreements and Additional Protocols but it was clear that more needed to be done. Perhaps the Board could assist the Secretariat in that regard through the adoption of an appropriate resolution supporting the Action Plan and universalization of the various safeguards agreements. That would enable the Committee to move on to advising the Board on other matters.

56. Noting that the Secretariat's presentation had contained no proposals for the Committee, he said it would be useful if the Secretariat considered how the Board could contribute and how the Committee might work to advise the Board.

57. Also, it would assist the Committee in its work if the Chairperson or her designate conducted consultations to identify common positions that might be set out in a possible resolution before the Committee's next meeting.

58. The representative of COLOMBIA said that her country remained firmly committed to global disarmament and the non-proliferation regime. Colombia attached great importance to the universalization of safeguards agreements and the additional protocol and supported the efforts of the Secretariat and Member States in that regard. Further work was needed to attain that objective and her delegation reiterated its willingness to participate constructively in the Committee's deliberations to that end.

59. The representative of the ISLAMIC REPUBLIC OF IRAN*, recalling the statement which he had made in the Board of Governors on 17 June 2005⁴, said his delegation continued to be concerned about maintenance of the balance between the promotional and the regulatory activities of the Agency.

⁴ See GOV/OR.1131, paras 117 and 118.

It was important to correct the false perception created in recent years of the Agency as ‘the United Nations nuclear watchdog’. The Agency had been entrusted by its Statute with the task of promoting the utilization of nuclear energy for peaceful purposes.

60. It was regrettable that, after many years, comprehensive safeguards were still not universal. Also, the additional protocol would need some years to prove its effectiveness, and it should be given the necessary time to do that.

61. The representative of NEW ZEALAND* said her delegation had not had sufficient time to study the documentation prepared for the Committee’s current session and urged the Secretariat to issue the documents for future sessions in a more timely manner.

62. Her country was a strong supporter of the Agency’s safeguards system with additional protocols, which it considered to be the current verification standard. In its view, achievement of the universalization of comprehensive safeguards was essential but progress towards that goal was far too slow. New Zealand, which had been among the first countries to conclude an additional protocol, was also a strong supporter of the universalization of additional protocols. It therefore welcomed the outreach activities of the Secretariat and various Member States aimed at encouraging the conclusion of additional protocols. Her country also welcomed the Board’s decision regarding the modification of SQPs and would like to see all SQP States modifying their SQPs as soon as possible.

63. The CHAIRPERSON said that she would sum up the discussion under agenda item 1(a) later.

(b) Enhancing analytical capabilities

(Note by the Secretariat 2006/Note 2)

64. The DIRECTOR OF THE DIVISION OF CONCEPTS AND PLANNING OF THE DEPARTMENT OF SAFEGUARDS gave a presentation entitled *Enhancing Analytical Capabilities*⁵.

65. The representative of JAPAN, having expressed appreciation of the Secretariat’s efforts directed towards strengthening the Agency’s safeguards activities, said that, given the present international situation regarding safeguards, it was essential that the Agency’s analytical capabilities be enhanced. Japan would therefore like to see all Member States cooperating fully with the Secretariat in its efforts to, inter alia, strengthen the NWAL, acquire access to higher-resolution optical imagery and obtain more information on nuclear procurement and supply activities.

66. At the same time, Japan believed that those efforts should be undertaken within the existing Regular Budget. The Secretariat should show not only that the measures it proposed would lead to more effective safeguards but also that those measures could be taken within the framework of the existing resources through optimization of their use.

67. With regard to the envisaged review of Annexes I and II to the Model Additional Protocol, Japan believed that it should be one of the main tasks of the Committee. It hoped that the Secretariat would provide the Committee with the information necessary for the achievement of a consensus among Member States.

68. The representative of NORWAY said that her country considered the proposals made in the Note by the Secretariat contained in document 2006/Note 2 to be pragmatic and sensible.

⁵ Attached as Annex 2.

69. Member States should help to increase the Agency's capabilities for processing and analysing environmental samples through an expansion of the NWAL, achieved through the qualification of additional laboratories and increases in the contract capacities of existing laboratories in the network.

70. Norway would like to see Member States voluntarily granting the Agency increased access to satellite imagery, extending to the Agency privileges in connection with access to sensor programming and scheduling, and providing training to Agency staff in satellite imagery analysis. Most importantly, Member States should work together with the Secretariat in exploring the possibility of the Agency's obtaining a system that would permit the direct acquisition of satellite imagery from ground stations which received data from safeguards-relevant sensors deployed on satellites.

71. Norway, which believed that the Agency had an important role to play in helping to combat illicit trafficking in nuclear materials and sensitive nuclear technology, would like to see more Member States providing the Agency with information on procurement enquiries and export denials and with information on commercial suppliers. Persons found to be involved in illicit trafficking networks should be prosecuted and all States must feel equally responsible for prosecuting them.

72. In her country's opinion, a review of Annexes I and II to the Model Additional Protocol should be initiated for the purpose of assessing whether they needed to be amended.

73. The representative of the REPUBLIC OF KOREA said that his delegation fully shared the Secretariat's views regarding the need to enhance the capacity of SAL and the NWAL to process and analyse environmental samples and that the measures necessary for implementing the Secretariat's proposals should be taken as soon as possible.

74. However, strengthening of the Agency's analytical capabilities would be of little use if the Agency did not obtain the right information from Member States. His delegation therefore agreed with the Director General that serious consideration should be given to establishing a systematic information collection mechanism.

75. In that connection, the Secretariat's proposals that Member States be invited to cooperate more in providing the Agency with safeguards-relevant information on procurement enquiries and export denials and that consideration be given to reviewing Annexes I and II to the Model Additional Protocol were very timely.

76. The representative of ECUADOR said that his country attached great importance to strengthening the Agency and the NPT so that the Agency might better fulfil its statutory obligations in areas such as nuclear safety, safeguards and, above all, technical cooperation.

77. His country, which was strongly committed to the Agency's objectives, would on 3 and 4 April 2006 be hosting in Quito a pan-American meeting, planned in cooperation with the Agency, on strengthening the implementation of international instruments designed to strengthen radiological and nuclear safety and security. Moreover, on 5 and 6 April it would be hosting a regional seminar on verifying compliance with nuclear non-proliferation commitments: strengthened safeguards, small quantities protocols and additional protocols, to which 25 Caribbean countries and 3 countries with SQPs would be invited. He had mentioned those two forthcoming events because they illustrated the fact that, in order to strengthen the safeguards system, countries did not necessarily have to assume further financial obligations within the framework of the Agency's Regular Budget.

78. Regarding the Note by the Secretariat contained in document 2006/Note 2, which had been issued only shortly before the Committee's current session, the proposals made in it would be studied very carefully by the relevant authorities in his country. In that connection, his delegation would appreciate more detailed information about the cost of implementing those proposals and about financing options.

79. The representative of CUBA said that from Note by the Secretariat contained in document 2006/Note 2 it appeared that the Secretariat had major needs as regards analytical equipment. However, the Note contained no breakdown of equipment costs and no information about when different equipment items would be needed. Moreover, the implications of the proposals made by the Secretariat were not very clear. Did the proposals made in paragraphs 15 and 16, for example, mean that an increase in Member States' contributions towards the Regular Budget were being contemplated and, if so, by how much and when would the increase take place?

80. The question of greater access to information and that of possibly modifying Annexes I and II to the Model Additional Protocol would require careful study by experts in Member States, which would take some time.

81. The proposals made in the Note by the Secretariat should be adopted only after all issues related to improving the effectiveness and efficiency of the safeguards system had been considered.

82. The representative of CANADA said that, although Note by the Secretariat contained in document 2006/Note 2 was helpful, the Secretariat had focused on technical matters largely within its own competence rather than on policy matters regarding which the Committee could make a useful contribution and Board guidance would be useful.

83. As regards environment sampling, her delegation considered that, if the analytical techniques involved had improved to the point where the Department of Safeguards would benefit from the upgrading of its analytical equipment, the upgrading should be funded through reprioritization within the Regular Budget provision for safeguards, which was increasing as a result of a decision that many Member States had found difficult to accept. Also, there were potential savings resulting from the introduction of integrated safeguards that the Secretariat could, and should, draw upon for enhancing analytical capabilities.

84. In her delegation's view, wide-area sampling was an issue which should be discussed by the Committee, and her delegation would like the Secretariat to consider when the Committee might discuss it.

85. Her delegation agreed with the Secretariat that the use of satellite imagery helped to optimize the use of safeguards resources; that was certainly so in the case of the Agency's verification activities in Canada. Through its Member State Support Programme, Canada was continuing to fund projects designed to strengthen the Agency's capabilities in the area of satellite imagery through the training of Agency staff and the upgrading of analysis software so that the Secretariat might gain the maximum of information from commercial satellite images. Her country, which believed that there were further potential applications of commercial satellite imagery, would continue to support the Secretariat's efforts in the satellite imagery area.

86. With regard to information on nuclear procurement and supply, Canada endorsed the proposals made in paragraph 31 and 32 of document 2006/Note 2, especially that relating to Annexes I and II to the Model Additional Protocol. Recent developments, such as the discovery of covert nuclear supply networks, suggested that the time was ripe for the two annexes to be reviewed, and Canada would support the establishment of an open-ended working group of experts for that purpose.

87. The representative of CHINA said that, since the document prepared by the Secretariat had been distributed late, his country's comments were only preliminary.

88. In recent years, as clandestine nuclear activities and covert international nuclear supply networks had come to light, the Agency had faced new challenges and thus needed to develop new technologies and techniques constantly to enhance its capabilities. As had been emphasized by the Director General at the previous session of the Committee, rapid advances in technology meant that

the Agency's capabilities in verification technologies needed to be strengthened. Environmental sample analysis and satellite surveillance were technologies that were very important to the Agency's ability to detect undeclared nuclear activities and to make objective and independent judgements in a timely fashion, and areas where there was a need to enhance further the Agency's independent analysis and judgment capabilities. China supported improving those capabilities in the safeguards and verification field. It hoped that countries, particularly those with advanced verification technologies, would share their know-how with the Agency and brief the Committee on relevant advances.

89. While supporting strengthening of the Agency's safeguards and verification capabilities, he stressed that preventing nuclear weapons proliferation and promoting peaceful uses of nuclear energy were the two major and complementary objectives enshrined in the Statute, and he hoped that a balance would be maintained between them.

90. The representative of GERMANY commended the Note by the Secretariat contained in document 2006/Note 2. His delegation shared the Secretariat's view that environmental sampling had proven to be one of the most effective measures for detecting undeclared nuclear material and activities. Fourteen laboratories in eight Member States supported the programme, and the Member States involved were subsidizing the analyses heavily.

91. Since 1996, thousands of environmental samples had been collected and analysed, and their number had increased significantly since 2003. The amount of environmental samples had led to negative consequences, above all on the timely analysis and reporting of results.

92. As the Secretariat intended to continue at the current high level and enhance plutonium particle analysis, it was requesting an expansion of the NWAL, substantial financial commitments from States and additional equipment and expert staff for SAL.

93. Although environmental samples had become a very effective safeguards measure, Germany doubted that the current high level of environmental sampling was really necessary. It would have preferred to read that the Secretariat's approach was to limit itself to collecting hundreds rather than thousands of environmental samples through careful and intelligent selection. There was no mention in the document of efforts to avoid mechanistic or systematic measures as explicitly requested in Article 4 of the Model Additional Protocol. It had been stated repeatedly in the Committee 24 and in Secretariat documents that technological improvements should lead to cost reductions, yet his delegation had found no trace of such an effort. Thus, Germany remained unconvinced that the Secretariat's requests were justified.

94. Regarding satellite imagery, the document gave a more balanced view of the present situation, including the goals, needs and proposals. His delegation hoped that the current small group of experienced analysts would not amass ever more satellite images, but make intelligent choices as to what was necessary for safeguards purposes. The same applied to information on nuclear procurement and supply.

95. In his delegation's view, there was no real need to update Annex I to the Model Additional Protocol. However, as pointed out in the Committee 24, an update of Annex II should be envisaged in conformity with the NSG Guidelines to simplify the review work of the working group of experts foreseen in Article 16.b. of the Model Additional Protocol.

96. Cooperation between Member States and the Agency in the field of procurement and supply should be enhanced to contribute to a broader understanding by the Agency of the illegal networks. It was his delegation's understanding that by setting up a unit for supporting the analysis of trade in sensitive nuclear technologies (NUTRAN), important steps had already been taken in that direction.

97. The representative of the RUSSIAN FEDERATION said the conclusion of safeguards agreements and additional protocols and enhancing the Agency's analytical capabilities figured prominently in resolution GC(49)/RES/13 on strengthening the effectiveness and improving the efficiency of the safeguards system and application of the Model Additional Protocol. His delegation viewed the current discussion as a step towards the implementation of that resolution. It was important that those matters remain within the scope of the Advisory Committee on Safeguards and Verification.

98. Noting that his delegation's comments were of a preliminary nature, he said the Secretariat's proposals for enhancing its analytical capabilities merited further consideration and in-depth study. Implementation of the proposals would require the solution of a number of technical, financial and legal issues. For example, upgrading SAL and expanding the NWAL implied significant investments both from the Agency and at national levels. Taking into account constant advances in the technologies and equipment used in the nuclear sphere, Annexes I and II to the Model Additional Protocol could indeed be reviewed. In so doing, it was important not only to ensure the implementation of measures to strengthen the non-proliferation regime but also to avoid creating unjustified complications in accessing the benefits of using nuclear energy for peaceful purposes.

99. His delegation had taken note of the Secretariat's estimated costs for the Committee, contained in document 2006/Note 3. They would place a significant burden on the Agency's budget, but were justified provided the Committee made concrete and viable decisions.

100. The representative of ARGENTINA reiterated her country's interest in improving the Secretariat's analytical capabilities enabling it to detect undeclared material and activities and to strengthen the safeguards system.

101. Document 2006/Note 2 contained valuable information and proposals, which would be studied thoroughly by Argentina's experts. Several items, such as expanding information on nuclear procurement and supply and the need to review the annexes to the Model Additional Protocol, deserved careful analysis, taking into account the need to preserve the rights of those States developing technology for the peaceful use of nuclear energy.

102. The representative of BRAZIL, noting that her delegation's remarks were preliminary owing to the late issuance of the relevant documents, thanked the Director of the Division of Concepts and Planning for her useful presentation.

103. The Secretariat's proposals to enhance safeguards capabilities in the areas of environmental sampling, satellite imagery and information on nuclear procurement and supply, contained in document 2006/Note 2, appeared useful and would be analysed in detail by the competent authorities in Brazil. Her delegation would appreciate a more accurate estimate of the budgetary implications of the measures proposed. She also requested additional technical clarification on the proposals relating to satellite imagery, particularly that in paragraph 24.

104. The representative of the UNITED KINGDOM said his country supported the Agency maintaining an effective and efficient capability to analyse safeguards samples, including environmental samples. A thorough review of environmental sampling capabilities and procedures was needed before any decisions were taken. All of the stages involved, from taking the initial sample to receiving the results, needed to be looked at.

105. The United Kingdom was cautious about the longer term goal of using fission track analysis with thermal ionization mass spectrometry, which was an extremely difficult and expensive technique. Only a few laboratories in the world had the expertise, which took a long time to gain and which required access to a nuclear reactor or other neutron source.

106. The Agency's R&D programme for nuclear verification had recently issued a request for Member State Support Programmes to conduct a review of SAL (a feasibility study for SAL infrastructure upgrade). The United Kingdom was, in principle, willing to accept that task but requested clarification from the Secretariat about the relationship between that request, which included both destructive analysis and environmental sampling, and the proposal contained in document 2006/Note 2, which referred only to environmental sampling. A thorough review and cost-benefit analysis was essential before making decisions and it was essential to avoid any unnecessary duplication of effort.

107. His delegation would appreciate a fuller explanation of paragraph 24, which was not very clear.

108. A review of Annexes I and II to the Model Additional Protocol as referred to in paragraph 32, without prejudice as to whether any additions would be made, was an important task for the Committee or any technical working group that might be set up for that purpose. It was worth pointing out, however, that there might be additional ways of addressing the basic problem, namely the difficulty of obtaining access to locations with no obvious connection to nuclear material or nuclear fuel cycle related activities.

109. The representative of FRANCE echoed others in saying that his comments would be preliminary because of the late distribution of the document. His delegation shared the Secretariat's view regarding the importance of the three areas addressed in document 2006/Note 2. The Secretariat's proposals should be examined thoroughly.

110. France was already providing assistance to the Agency in the area of environmental sample analysis through its Member State Support Programme and viewed the Secretariat's proposals in that regard with particular interest. France was also providing support to the Agency in the area of satellite imagery. The Secretariat's proposal to provide training to Agency staff would not be difficult to implement. The other proposals in that area would, however, be more complex to implement. The Secretariat's proposals concerning information on nuclear supply networks were also interesting, but such information could be provided only on a voluntary basis.

111. Concerning the annexes to the Model Additional Protocol, they could be updated and brought in line with the NSG Guidelines to ensure harmonized international action.

112. The representative of the UNITED STATES OF AMERICA said her country shared the Secretariat's concerns that SAL and the NWAL, while able to provide timely environmental sample analysis for high-priority samples, had a backlog on routine samples. Such analyses had proven to be effective in detecting undeclared nuclear activities, as well as in assessing other important safeguards related matters. It was her delegation's understanding that the Agency was also experiencing delays in processing bulk material samples taken for destructive analysis. That situation could assume greater significance with the start-up of large-scale reprocessing plants and a potential increase in safeguards activity in more countries.

113. Member State Support Programmes should be encouraged to study ways to improve the safeguards sample processing capability and capacity at SAL and other network laboratories. In addition, steps should be taken to attract, train and retain a highly qualified cadre of scientists and technicians at SAL. Experienced personnel could help reduce sample evaluation and reporting time and ensure strong quality assurance practices. Steps were needed to counter detrimental personnel practices that resulted in the premature loss of experienced staff through contract termination or enforced rotation. Staff Rule 3.03.1 specified that the typical period of service for a staff member in the Professional category was five years, with a maximum of seven. However, exceptions had been made in the past for safeguards inspectors because of the need for professionals with specialized fuel cycle experience and to maximize the Agency's investment in training. In view of the significance of

sample analysis and evaluation in the new strengthened safeguards regime, sample analysis specialists at SAL and in the Department of Safeguards should be accorded the same status as safeguards inspectors, including the granting of long-term contracts.

114. The Chairperson could conduct open-ended consultations among interested States with a view to improving the retention of experienced laboratory and safeguards analysts, recommending continued technical work to improve the Agency's capability and capacity to analyse samples, and attracting additional personnel to perform sample statistical evaluations.

115. In addition, a group of technical experts from interested States could be given a mandate by the Committee to consider ways to better integrate and analyse information gathered from open sources, satellite imagery, Agency information and State-provided information (including information on nuclear supply and procurement) and also to review the evolution of the illicit nuclear supply networks so as to gain a better understanding of the vulnerabilities that allowed such networks to function, with a particular focus on areas in which additional Agency efforts could make a contribution.

116. The United States would also support the creation of an open-ended working group to review Annexes I and II to the Model Additional Protocol.

117. The representative of SOUTH AFRICA said it was well known that certain individuals were being prosecuted in his country for their alleged involvement in activities in contravention of South Africa's non-proliferation legislation. Thus, South Africa was keenly aware that the illicit network in nuclear technology to manufacture nuclear weapons presented a serious challenge to collective non-proliferation efforts, in general, and the NPT in particular. It was important to review and improve controls over nuclear material, technologies and equipment to prevent nuclear weapons proliferation and illicit trafficking. Consideration should also be given to enhancing effective information sharing and cooperation, and ways of enhancing the Agency's central role in that regard.

118. The representative of AUSTRALIA recognized the important role of environmental sampling in enabling the Agency to achieve its safeguards objectives and supported its medium term goal to reduce environmental sample analysis times. One way of achieving that could be to increase SAL's resources, as suggested by the Secretariat. It was also worth looking into ways of improving the efficiency of current practices and procedures.

119. Regarding the proposal to improve the capability to process and analyse environmental samples at SAL, he noted that the members of the NWAL conducted analyses at a price considerably below the true cost price, as acknowledged by the Secretariat. It followed that if SAL were to develop its capacity and conduct more in-house analyses, there would be an increase in the cost to the Agency. That aspect was worthy of further study.

120. Document 2006/Note 2 had noted the difficulty of attracting new laboratories to the NWAL. A significant factor in that regard was the limited amount of sample analysis work received by each laboratory. Too few samples for analysis might not justify devoting resources exclusively to a safeguards project. That situation applied to particle analysis, which was a particularly important analytical capability for the Agency. Mapping the processes involved in sample preparation and analysis, including the interactions between SAL and the NWAL, might lead to the identification of ways of optimizing work flow within the network.

121. Paragraph 13 of the document discussed the acquisition of an ultra-high sensitivity secondary ion mass spectrometer at a cost of more than four million dollars. His delegation suggested that an expert working group be convened to consider all the relevant issues in depth and report back to the Committee.

122. Australia recognized the significant role of multispectral imagery in achieving safeguards objectives and acknowledged the potential role of satellite imagery in monitoring the status of facilities. Using imagery in that way could result in savings on safeguards inspector effort or enable a more timely and efficient deployment of inspectors. His delegation encouraged the Secretariat to develop that proposal further.

123. The existence and operation of clandestine nuclear supply and procurement networks posed a serious threat to international peace and security. The Agency had an important role to play in that area and should continue to strengthen its activities aimed at analysing nuclear trade, providing an essential capability for implementation of the Model Additional Protocol and strengthening State analyses.

124. Australia supported a review of Annexes I and II to the Model Additional Protocol. In relation to Annex II, the inclusion of dual-use items should be considered. Member States should cooperate with the Agency to ensure that it was well placed to address that important issue.

125. The DEPUTY DIRECTOR GENERAL FOR SAFEGUARDS, responding to members' comments regarding document distribution, said that the Secretariat was committed to providing background documentation to the Committee in a timely manner. In the present case, taking into account the fact that consultations had ended only in mid-December 2005, that the agenda had been issued on December 16, and the intervening winter holidays, there had been less than four weeks to produce the documentation. Time was needed to produce high-quality and appropriate documentation requested by the Committee. With the meeting date already established the Secretariat had been faced with the choice of either rushing to provide incomplete documentation or working longer and harder on the documents; the Secretariat had chosen the latter course.

126. He asked for the Committee's understanding should the Secretariat experience the same problem in the future, especially if the meetings were again set close to each other. Considering the Agency's other meetings and considering that the documents were technical papers, the Secretariat might not always be in a position to provide background documentation of that type several weeks prior to meetings in all the official languages. He assured members that the Secretariat endeavoured to do its best at all times.

127. Replying to the request made by several members for a review of relevant resolutions of the Board and General Conference, he said that work had already begun on that document and it would be available for the next session of the Committee.

128. The HEAD OF THE VERIFICATION AND SECURITY POLICY COORDINATION SECTION OF THE OFFICE OF EXTERNAL RELATIONS AND POLICY COORDINATION, responding to Brazil about whether the figure of 71 States with significant nuclear activities included States with voluntary offer safeguards agreements and States with INFCIRC/66-type safeguards agreements, confirmed that the number included non-nuclear-weapon States party to the NPT, States defined under the NPT as nuclear-weapon States that had voluntary offer safeguards agreements and States with INFCIRC/66-type safeguards agreements. A full list was available on the Agency's website with an indication of which of those States had additional protocols in force. Two of the States with voluntary offer safeguards agreements did not yet have additional protocols in force, and none of the three States with INFCIRC/66-type safeguards agreements had yet taken steps to conclude additional protocols.

129. The CHAIRPERSON took note of the Secretariat's promise to prepare documentation in a timely manner, depending on the frequency of the meetings.

The meeting rose at 6.20 p.m.



International Atomic Energy Agency

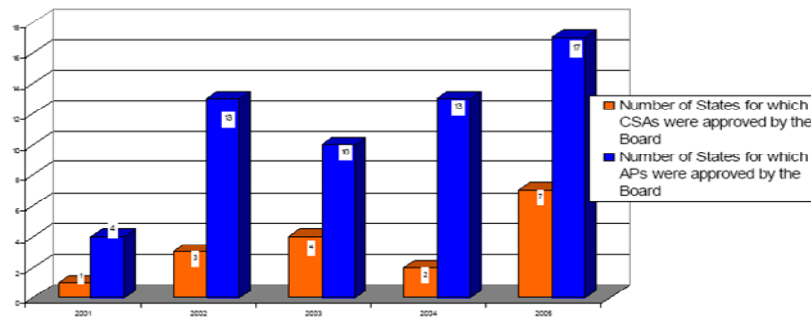
Conclusion of Safeguards Agreements and Additional Protocols

Prepared for the Advisory Committee on Safeguards
and Verification within the Framework of the
Agency Statute (Committee 25)

17 January 2006

Board approval of comprehensive safeguards agreements and additional protocols, yearly, 2001-2005

Status 31 December 2005



AP World Status



As of 31 December 2005

71 States have APs in force

2 States have APs otherwise applied

Efforts to encourage wider adherence to the Agency's safeguards system

- In connection with the adoption of the Model Additional Protocol, the Board requested that the Director General negotiate additional protocols with States having a Safeguards Agreement with the Agency in order to strengthen the effectiveness and improve the efficiency of the safeguards system as a contribution to global non-proliferation efforts (As defined in the foreword to INFCIRC/540 (Corr.)).



Efforts to encourage wider adherence to the Agency's safeguards system

- In 2000, the General Conference (GC(44)/RES/19) provided a number of "elements of a Plan of Action" to promote and facilitate the conclusion and entry into force of NPT safeguards agreements and additional protocols, including, inter alia:
 - "Intensified efforts by the Director General to conclude safeguards agreements and additional protocols".
 - "Assistance by the IAEA and MS to other States by providing their knowledge and technical expertise necessary to conclude and implement safeguards agreements and additional protocols".
- Subsequent GC resolutions noted "the commendable efforts" of some MS and the Secretariat in implementing elements of that Plan of Action, encouraged them to continue these efforts, and recommended that more MS consider implementing elements of the Plan.



Efforts to encourage wider adherence to the Agency's safeguards system

- The 2001-2005 Medium Term Strategy (MTS) aimed for, "the conclusion of many of the outstanding NPT safeguards agreements, and Additional Protocols for a majority of all States and for almost all with nuclear facilities" (GOV/1999/69).
- The 2006-2011 MTS reiterates the importance of promoting the "entry into force of outstanding comprehensive safeguards agreements, and of additional protocols for all States" (GOV/2005/8).



Efforts to encourage wider adherence to the Agency's safeguards system

2005 Plan of Action: Three categories of States

- ✓ (1) **Member States with nuclear material or facilities under routine safeguards** (71 States)
 - Individual consultations, national seminars
- ✓ (2) **Member States without such material or facilities (Small Quantity States)** (68 States)
 - Cooperation within the Secretariat, outreach seminars
- ✓ (3) **Non-Member States** (53 States)
 - Co-operation with advocate States, presentations in the margins of regional meetings



Efforts to encourage wider adherence to the Agency's safeguards system

More than **150 States** have attended IAEA outreach events over the past four years.

- **Regional and interregional seminars** (for instance, Lima 2001, Johannesburg 2002, Kuala Lumpur 2003 and Sydney 2004)
- **SSAC Training, Legislative Services and Assessment Services**; training courses, for instance, in Australia, Japan, Russian Federation and the United States
- **Outreach publications**



Analysis – State Categories Status as of 31 December 2005

	Safeguards agreements	Additional Protocols
States with Significant Nucl. Activities (SNA) (71 States)	All	In force: 45 Signed/appr.: 15 No action: 11
No SNA – IAEA Member States (68 States)	In force: 52 Signed/appr.: 9 No action: 7	In force: 25 Signed/appr.: 20 No action: 23
No SNA - Non-Member States (53 States)	In force: 34 Signed/appr.: 6 No action: 13	In force: 1 Signed/appr.: 7 No action: 45

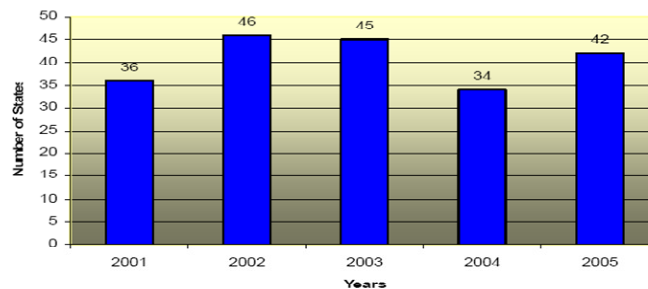


New Trends/Developments

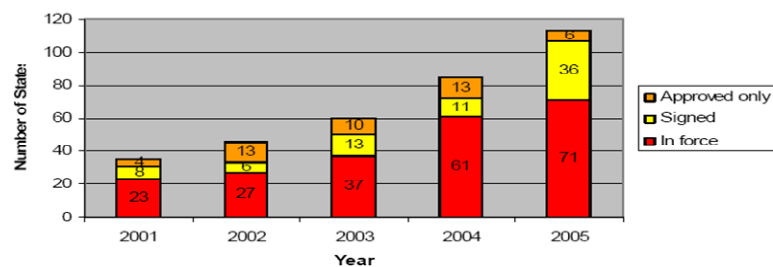
- Increasing number of States with additional protocols signed/approved but not yet in force
- Board decision of 20 September 2005 regarding Small Quantities Protocols (for SQP States, assistance related to SQP amendments is being coordinated with other outreach efforts and SSAC training)
- Outreach seminars combined with hands-on training on safeguards reporting (for instance, in Morocco 2005)



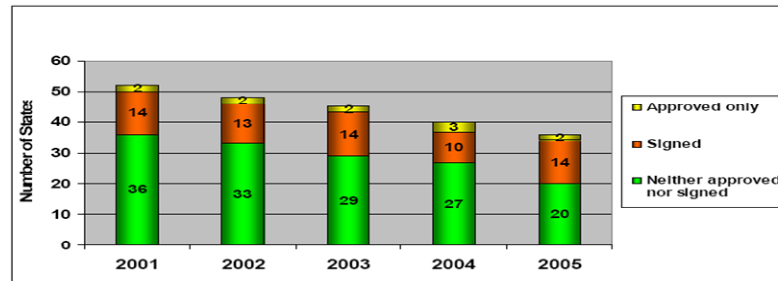
States with Additional Protocols approved or signed but **not yet in force** at the end of each year (2001-2005)



Conclusion of Additional Protocols (2001-2005 Cumulative) Status as of 31 December 2005



Outstanding NPT safeguards agreements (status at the end of each year 2001-2005)



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International Atomic Energy Agency



Planned Activities by the Secretariat in 2006

- Interregional Agency seminar in Vienna for 58 SQP States, February 2006
- Regional outreach seminars (to cover SQP issue as well)
 - for the Association of Caribbean States (Ecuador, April 2006)
 - for the Pacific Islands Forum (July 2006)
- Booklet on reporting requirements
- Legislative Assistance including ITE missions
- SSAC training

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International Atomic Energy Agency



Conclusions

- The Secretariat's outreach efforts, in particular regional seminars and bilateral consultations, have helped States initiate and pursue national processes leading to the conclusion of NPT safeguards agreements and additional protocols
- The Secretariat has been most successful when a country-specific approach could be applied addressing the particular situation of a country
- The Secretariat's outreach efforts – complemented by efforts of Member States – have been successful in facilitating and speeding up a strengthened and integrated safeguards system

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International Atomic Energy Agency





International Atomic Energy Agency

Enhancing Analytical Capabilities

Prepared for the Advisory Committee on Safeguards
and Verification within the Framework of the
Agency Statute (Committee 25)

17 January 2006

1

Enhancing Capabilities in the Areas of

- Environmental Sampling
- Satellite Imagery
- Information on Nuclear Procurement and Supply

2

International Atomic Energy Agency 

Environmental Sampling

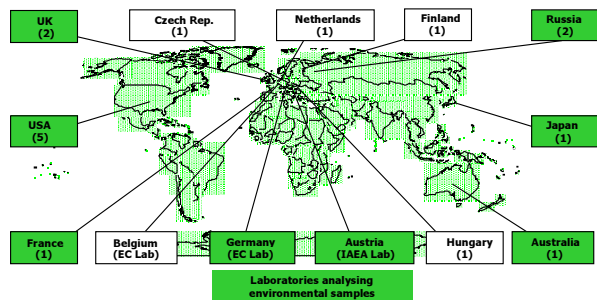


- Extremely powerful technique for detecting undeclared nuclear material and activities
- Environmental sample collections in more than 65 States during inspections, visits and complementary access
- Over 5000 samples collected and analyzed to date

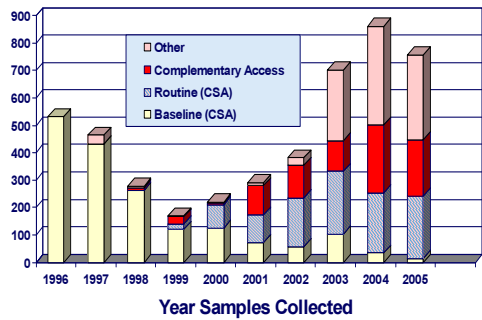
3

International Atomic Energy Agency 

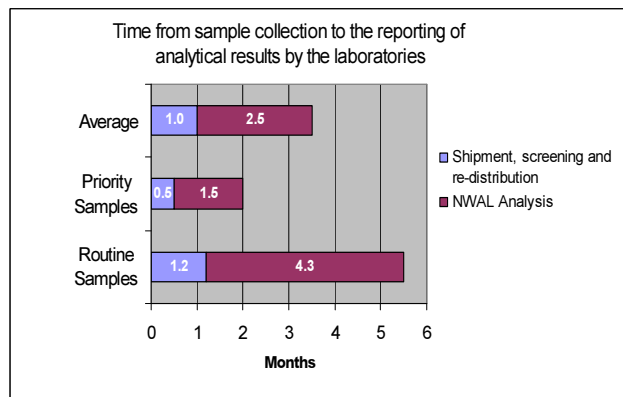
IAEA Network of Analytical Laboratories (Number of NWAL Laboratories in the State)



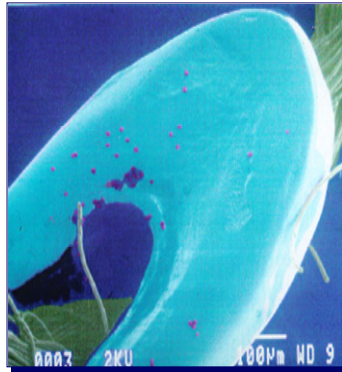
Number of Environmental Samples Collected



Sample Turnaround Time



Particle Analysis



Detection and analysis of individual micron-size particles containing fissionable materials

7

International Atomic Energy Agency 

Goals - Environmental Sampling

- **Near-term** – reduce average time between sample collection and reporting of laboratory results to 1.5-2 months while:
 - Supporting analysis of ~700 samples/year
 - Permitting faster turnaround of priority samples
 - Enhancing particle analysis capabilities
- **Long-term** – consideration should be given to SAL acquiring the capability for the identification of particles by fission track in combination with mass spectrometry analysis

8

International Atomic Energy Agency 

Needs - Expansion of NWAL Capabilities

Options

- Qualify additional NWAL laboratories
- Enhance capacity (i.e. number of samples analyzed) and capabilities (i.e. types of analyses performed) of current NWAL laboratories, particularly with respect to particle analysis

9

International Atomic Energy Agency 

Needs - Expansion of NWAL Capabilities

Qualifying additional NWAL laboratories

- Requires advance infrastructure and substantial financial commitment from the State
- Since original expansion of NWAL in 1996, only 4 laboratories have met qualifications for environmental sample analysis

Prospects for increasing number, capacity and capabilities of existing NWAL laboratories, other than SAL, is uncertain

10

International Atomic Energy Agency 

Needs - Enhancing SAL Capabilities

- **Near term** – Replace SAL's Secondary Ion Mass Spectrometer (SIMS), currently used for particle analysis, with Ultra-High Sensitivity SIMS for **faster analysis**
- **Long term** - Acquiring the capability for identifying particles by fission track in combination with mass spectrometry analysis for **analysing more samples**

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International Atomic Energy Agency 

Proposals – Environmental Sampling

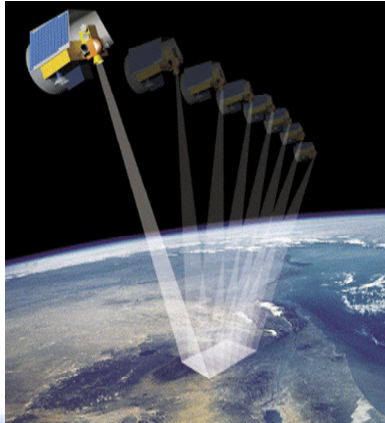
Member State support for:

- **improving SAL's capability** to process and analyse environmental samples;
- **expanding the NWAL** by qualifying additional laboratories and by increasing the capabilities and contract capacities of current NWAL laboratories.

12

International Atomic Energy Agency 

Satellite Imagery



- Effective tool supporting verification of correctness and completeness of States' declarations
- Small team of experienced analysts within the Safeguards Department
- Contracts in place with a number of providers of commercial satellite imagery products

13

Status - Satellite Imagery

Satellite imagery helps:

- In confirming the operational status of nuclear facilities
- In better understanding the features of buildings on nuclear sites
- In resolving questions about possible undeclared activities

Results in optimized use of resources in the field and minimizing burden to State and operators

14

Goals – Satellite Imagery

- To enhance Agency's present capabilities for analyzing imagery
- To expand types of imagery available to the Agency
- To obtain particularly important satellite imagery with less delay

15

Needs – Satellite Imagery

- Access to higher resolution optical imagery (<0.5 m)
- Access to high resolution thermal imagery
- Better access to non-commercial satellite data (e.g. meteorological data, hyper-spectral libraries)
- Direct access to imagery providers for special cases

16

Proposals – Satellite Imagery

That Member States

- Voluntarily grant increased Agency access to imagery and extend privileges for sensor programming and scheduling
- Voluntarily provide more specialized training to Agency staff in imagery analysis
- Explore the possibility of Agency acquiring a system to allow direct acquisition of imagery from ground stations that receive data from satellite sensors

Proposals focus on increased access to imagery and related data, not on increased resources

17

Information on Nuclear Procurement and Supply

- **Statute Art VIII.A:** “Each member should make available such information as would, in the judgement of the member, be helpful to the Agency.”
- **Resolution GC(49)/RES/13, para 21:** “Welcomes efforts to strengthen safeguards, including the Secretariat’s activities in verifying and analysing information provided by Member States on nuclear supply and procurement ... and invites all States to cooperate with the Agency in this regard.”
- **MTS 2006-2011: Substantive Goal C/Objective C.1:** (viii) Obtain, through appropriate mechanisms and channels, pertinent information on international nuclear activities and trade relevant to safeguards implementation.”

18

Status – Information on Procurement and Supply

- Additional Protocol and Voluntary Reporting Scheme – Provide **some information** relevant to nuclear procurement and supply
 - AP Annex I: Description of scale of operations for manufacture, assembly and/or construction of certain nuclear fuel cycle related items and material
 - AP Annex II: List of items required to be declared upon export
- November 2004: Establishment of a Unit dedicated to strengthening analysis of information for safeguards purposes on trade in sensitive nuclear technology

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Goal – Information on Procurement and Supply

- Secure access to more, and a wider variety of, information related to nuclear procurement and supply

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Needs – Information on Procurement and Supply

- Better access to safeguards relevant information on nuclear procurement and supply
- Support from Member States through:
 - voluntary information sharing
 - improved communication channels to clarify questions related to procurement and supply
 - optimization of Agency's analytical approaches and tools
- Review of the Annexes of the Model Additional Protocol to ascertain whether amendments should be made

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Proposals – Information on Procurement and Supply

- Member States to arrange, on a voluntary basis, for provision to the Agency of safeguards relevant information on:
 - Procurement inquiries
 - Export denials
- Bilateral consultations with Member States to identify ways to share procurement-related information
- Review and assess the need to amend Annexes I and II of the Model Additional Protocol