## INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)

Established: 1957 Membership: 138 states

**Functions:** The main functions of the IAEA are to: encourage and assist research, development and practical application of atomic energy for peaceful uses throughout the world; establish and administer safeguards designed to ensure that such activity assisted by the Agency is not used to further any military purpose; apply safeguards to relevant activities at the request of Member States; apply, under the Nuclear Non-Proliferation Treaty (NPT) and other international treaties, mandatory comprehensive safeguards in non-nuclear weapon States (NNWS) Parties to such treaties.

In carrying out its functions, the Agency conducts its activities in accordance with the purposes and principles of the UN Charter to promote peace and international cooperation, and in conformity with policies of the <u>United Nations</u> for furthering the establishment of worldwide disarmament through safeguards.

The Agency's safeguards system is defined primarily in Art. XII of the IAEA Statute, and in the following documents: INFCIRC/66 (designed to be applied in any state that concluded a Safeguards Agreement), INFCIRC/153 (used as a basis for agreements with States Parties to the NPT), the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco), the Southeast Asia Nuclear Weapon Free Zone Treaty (Treaty of Bangkok), the African Nuclear-Weapon-Free-Zone Treaty (Treaty of Pelindaba), the South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga), and the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC).

#### **Verification and Compliance:**

Verification: Under Safeguards Agreements, IAEA inspectors regularly visit nuclear facilities to verify records maintained by State authorities on the whereabouts of nuclear material under their control, to check IAEA-installed instruments and surveillance equipment, and to confirm physical inventories of nuclear material. These and other safeguard measures provide independent, international verification that governments are abiding by their commitments to the peaceful use of nuclear technology. A precondition

for the implementation of safeguards is a formal safeguards agreement between the Agency and the State.

Compliance: In accordance with the Statute and existing practice, the Board is responsible for approving safeguards procedures and Safeguards Agreements, and for general supervision of the Agency's safeguards activities. In a case of non-compliance with a safeguards commitment, the Board of Governors of the IAEA is to call upon the State in question to remedy any outstanding issues; the Board will then decide on its referral to the UN Security Council and General Assembly.

**Principal organs:** General Conference, <u>Board of Governors</u>, <u>Secretariat</u>.

### **General Conference**

The General Conference consists of all 138 IAEA Member States.

**Functions:** The General Conference has a broad review and policy guidance function with regard to all IAEA programs, but no day-to-day safeguards role. It may discuss any question or matter within the scope of the IAEA Statute or in relation to the powers and functions of any organ provided for in the Statute.

The General Conference has endorsed the system of safeguards adopted by the Board of Governors, and approved the IAEA's safeguards role under the NPT.

### **Developments:**

2005: The 2005 session of the General Conference, held from 26-30 September 2005, adopted resolutions and decisions regarding, *inter alia*:

- Applications for membership of the Agency Application by Belize [GC(49)/RES/1]
- Approval of the Appointment of the Director General [GC(49)/RES/2]
- The Agency's Accounts for 2004 [GC(49)/RES/3]
- The Agency's Budget for 2005 Supplementary Appropriation [ $\underline{GC(49)/RES/4}$ ]
- Regular Budget Appropriations for 2006 [GC(49)/RES/5]

- Technical Cooperation Fund Allocation for 2006 [GC(49)/RES/6]
- The Working Capital Fund in 2006 [GC(49)/RES/7]
- Scale of assessment of members' contributions for 2006 [GC(49)/RES/8]
- Measures to strengthen international cooperation in nuclear, radiation, and transport safety and waste management [GC(49)/RES/9]
- Nuclear security Measures to Protect Against Nuclear Terrorism [GC(49)/RES/10]
- Strengthening of the Agency's Technical Cooperation Activities [GC(49)/RES/11]
- Strengthening the Agency's Activities Related to Nuclear Science, Technology and Applications [GC(49)/RES/12]
- Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System and Application of the Model Additional Protocol [GC(49)/RES/13]
- Implementation of the NPT Safeguards Agreement between the Agency and the Democratic People's Republic of Korea [GC(49)/RES/14]
- Application of IAEA Safeguards in the Middle East [GC(49)/RES/15]
- Personnel [GC(49)/RES/16]
- Examination of Delegates' Credentials [GC(49)/RES/17]

# 2004: The 2004 session of the General Conference, held from 20-25 September 2004, adopted resolutions and decisions regarding, *inter alia*:

- Application by the Republic of Chad for Membership in the Agency (GC(48)/RES/1, adopted, 20 September 2004);
- Application by the Togolese Republic for Membership in the Agency (GC(48)/RES/2, adopted, 20 September 2004);
- Application by the Islamic Republic of Mauritania for Membership in the Agency (GC(48) /RES/3, adopted, 24 September 2004);
- Regular Budget Appropriations for 2005(GC(48) /RES/6, adopted, 24 September 2004);
- Measures to Strengthen International Cooperation in Nuclear, Radiation and Transport Safety and Waste Management (GC(48)/RES/10, adopted, 24 September 2004);

- Nuclear Security Measures to Protect against Nuclear Terrorism Progress on Measures to Protect against Nuclear and Radiological Terrorism (GC(48)/RES/11, adopted, 24 September 2004);
- Strengthening of the Agency's Technical Cooperation Activities (GC(48)/RES/12, adopted, 24 September 2004);
- Strengthening the Agency's Activities Related to Nuclear Science, Technology and Applications (GC(48)/RES/13, adopted, 24 September 2004);
- Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System and Application of the Model Additional Protocol (GC(48)/RES/14, adopted, 24 September 2004);
- Implementation of the NPT Safeguards Agreement between the Agency and the Democratic People's Republic of Korea (GC(48)/RES/15, adopted, 24 September 2004); and
- Application of IAEA Safeguards in the Middle East (GC(48)/RES/16, adopted, 24 September 2004).

# 2003: The 2003 session of the General Conference, held from 15-19 September 2003, adopted resolutions and decisions regarding, *inter alia*:

- Regular Budget Appropriations for 2004 (GC(47)/RES/2, adopted, 18 September 2003);
- Technical Co-operation Fund Allocation for 2004 (GC(47)/RES/3, adopted, 18 September 2003);
- The Agency's Program and Budget for 2004-2005: The Financing of Safeguards (GC(47)/RES/5, adopted, 18 September 2003);
- Measures to Strengthen International Cooperation in Nuclear, Radiation and Transport Safety and Waste Management (GC(47)/RES/7, adopted, 19 September 2003);
- Nuclear and Radiological Security: Progress on Measures to Protect against Nuclear and Radiological Terrorism (GC(47)/RES/8, adopted, 19 September 2003);
- Strengthening the Agency's Technical Cooperation Activities (GC(47)/RES/9, adopted, 19 September 2003);
- Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System and Application of the Additional Protocol (GC(47)/RES/11, adopted, 19 September 2003);
- Implementation of the NPT Safeguards Agreement Between the Agency and the Democratic

- People's Republic of Korea (GC(47)/RES/12, adopted, 19 September 2003);
- Application of IAEA Safeguards in the Middle East (GC(47)/RES/13, adopted, 19 September 2003);
- Implementation of the United Nations Security Council Resolutions Relating to Iraq (GC(47)/DEC/12, endorsed, 19 September 2003); and
- Israeli Nuclear Capabilities and Threat (GC(47)DEC/13, endorsed, 19 September 2003).

# 2002: The 2002 session of the General Conference held from 16-20 September 2002, adopted resolutions regarding, *inter alia*:

- Application by the State of Eritrea for Membership of the Agency (GC(46)/RES/1, adopted, 17 September 2002);
- Application by the Kyrgyz Republic for Membership of the Agency (GC(46)/RES/2, adopted, 16 September 2002);
- Application by the Republic of Seychelles for Membership of the Agency (GC(46)/RES/3, adopted, 16 September 2002);
- The Agency's Accounts for 2001 (GC(46)/RES/4, adopted, 19 September 2002);
- Measures to strengthen International Co-operation in Nuclear, Radiation, Transport and Waste Safety (GC(46)/RES/9, adopted, 20 September 2002);
- Strengthening of the Agency's Technical Cooperation Activities (GC(46/RES/10, adopted, 20 September 2002);
- Strengthening of the Agency's Activities Related to Nuclear Science, Technology and Applications (GC(46)/RES/11, adopted, 20 September 2002);
- Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System and Application of the Model Additional Protocol (GC(46)/RES/12, adopted, 20 September 2002);
- Nuclear Security-Progress on Measures to Protect against Nuclear Terrorism (GC(46)/RES/13, adopted, 20 September 2002);
- Implementation of the NPT Safeguards Agreements Between the Agency and the Democratic People's Republic of Korea (GC(46)/RES/14, adopted, 20 September 2002); and
- Implementation of the United Nations Security Council resolutions relating to Iraq (GC(46)/RES/15, adopted, 20 September 2002); and

 Application of IAEA Safeguards in the Middle East (GC(46)/RES/16, adopted, 20 September 2002).

# 2001: The 2001 session of the General Conference held from 17-21 September 2001, adopted resolutions regarding, *inter alia*:

- Application by the Federal Republic of Yugoslavia for Membership of the Agency (GC(45)/RES/1, adopted, 17 September 2001);
- Application by the Republic of Botswana for Membership of the Agency (GC(45)/RES/2, adopted, 17 September 2001);
- Measures to Strengthen International Cooperation in Nuclear, Radiation, Transport and Waste Safety (GC(45)/RES/10, adopted, 21 September 2001);
- Strengthening of the Agency's Technical Cooperation Activities (GC(45)/RES/11, adopted, 21 September 2001);
- Strengthening the Agency's Activities Related to Nuclear Science, Technology and Applications (GC(45)/RES/12, adopted, 21 September 2001);
- Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System and Application of the Model Additional Protocol (GC(45)/RES/13, adopted, 21 September 2001);
- Measures to Improve the Security of Nuclear Materials and Other Radioactive Materials (GC(45)/RES/14, adopted, 21 September 2001);
- Implementation of the NPT Safeguards Agreement Between the Agency and the Democratic People's Republic of Korea (GC(45)/RES/16, adopted, 21 September 2001);
- Implementation of United Nations Security Council Resolutions Relating to Iraq (GC(45)/RES/17, adopted, 21 September 2001); and
- Application of IAEA Safeguards in the Middle East (GC(45)/RES/18, adopted, 21 September 2001).

# 2000: The 2000 session of the General Conference, September 18-22, adopted resolutions regarding, *inter alia:*

- The Financing of Technical Co-operation Contributions to the Agency's Technical Co-operation Fund (GC(44)/RES/8, adopted, 22 September 2000);
- Measures to Strengthen International Cooperation in Nuclear, Radiation and Waste Safety (GC(44)/RES/11, adopted, 22 September 2000);

- The Safety of Radioactive Waste Management (GC(44)/RES/12, adopted, 22 September 2000);
- Convention on Early Notification of a Nuclear Accident and Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (GC(44)/RES/16, adopted, 22 September 2000);
- Safety of Transport of Radioactive Materials (GC(44)/RES/17, adopted, 22 September 2000);
- Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System and Application of the Model Protocol (GC(44)/RES/19, adopted, 22 September 2000);
- Measures Against Illicit Trafficking in Nuclear Materials and Other Radioactive Sources (GC(44)/RES/20, adopted, 22 September 2000); and
- Outcomes of the NPT Review Conference Relevant to the Activities of the IAEA (GC(44)/RES/25, adopted, 22 September 2000).

# 1999: The 1999 session of the General Conference, 27 September-1 October, adopted resolutions regarding, *inter alia*:

- Implementation of the Agreement between the Agency and the Democratic People's Republic of Korea for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons (GC(43)/RES/3, adopted, 1 October 1999):
- Measures to Strengthen International Cooperation in Nuclear, Radiation and Waste Safety

   The Safety of Radiation Sources and the Security of Radioactive Materials (GC(43)/RES/10, adopted, 1 October 1999);
- Measures to Strengthen International Cooperation in Nuclear, Radiation and Waste Safety
   Safety of Transport and Radioactive Materials (GC(43)/RES/11, adopted, October 1 1999);
- Plan for Producing Potable Water Economically (GC(42)/RES/15, adopted, 1 October 1999);
- Extensive Use of Isotope Hydrology for Water Resources Management (GC(43)/RES/16, adopted, 1 October 1999);
- Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System and Application of the Model Protocol (GC(43)/RES/17, adopted, 1 October 1999); and
- Measures Against Illicit Trafficking in Nuclear Materials and Other Radioactive Sources (GC(43)/RES/16, adopted, 1 October 1999).

## 1998: The 1998 session of the General Conference, 21- 25 September, adopted resolutions:

- Expressing concern over continued noncompliance by North Korea and urging it to cooperate fully with the Agency regarding the Implementation of the Agreements Between the Agency and the Democratic People's Republic of Korea for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons (GC(42)/RES/2, adopted, 25 September 1998);
- Condemning Iraq's decision on 5 August 1998 to suspend cooperation with the IAEA, demanding that it rescind its decision, resume dialogue and begin full cooperation with the Agency; stressing that the Agency's Action Team should continue to further investigate any aspects of Iraq's nuclear program (GC(42)/RES3, adopted, 25 September 1998);
- Appealing to all States not parties to join the Convention on Nuclear Safety (GC(42)/RES/10, adopted, 25 September 1998);
- Emphasizing that Member States make all necessary efforts to have contingency plans in place for nuclear power plants, fuel cycle and medical facilities which use radioactive materials well before 31 December 1999, in order to share information and handle potential problems which may arise due to the Year 2000 problem (GC(42)/RES/11, adopted, 25 September 1998);
- Encouraging all governments to join in international co-operative efforts to strengthen the safety of radiation sources and the security of radioactive materials (GC(42)/RES/12, adopted 25 September 1998);
- Expressing "grave concern" and strongly deploring the nuclear tests by India and Pakistan in May 1998; calling on them to conclude the Additional Protocols as called for by resolution (GC(41)/RES/16, adopted, 25 September 1998); and
- Urging all States to become Parties to the NPT and the CTBT and to place all their nuclear material and facilities under comprehensive Agency safeguards without delay and conditions; urging all States to support negotiations for a treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices and the five nuclear-weapon States to fulfill their commitments under Article VI of the NPT (GC(42)/RES/19, adopted, 25 September 1998); and

 Confirming the urgent need for all States in the Middle East to immediately accept the application of IAEA Safeguards in the region; calling upon "all parties directly concerned to consider seriously taking the practical and appropriate steps required for the implementation of the proposal to establish a mutually and effectively verifiable NWFZ in the region"; and "inviting all countries to adhere to the international non-proliferation regime" (GC(42)/RES/21, adopted, 25 September 1998).

In addition, the General Conference decided to endorse a statement by the President on the inclusion of the agenda item "Israeli Nuclear Capabilities and Threat." The statement noted that the item had been discussed in the 42nd session and that certain Member States intended to include the item on the provisional agenda of the 43rd session of the General Conference (GC(42)/DEC/11, issued, September 1998).

### 1997: The 1997 session of the General Conference, 29 September-3 October, adopted resolutions:

- Requesting all concerned States and other Parties to Safeguards Agreements to sign Additional Protocols on Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System and Application of the Model Protocol (GC(41)/RES/16, adopted, 16 October 1997);
- Urging North Korea to cooperate fully with the Agency regarding the Implementation of the Agreements Between the Agency and the Democratic People's Republic of Korea for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons (GC(41)/RES/22, adopted, 22 October 1997);
- Appealing to all States not parties to join the Convention on Nuclear Safety (GC(41)/RES/10, adopted, 10 October 1997);
- Welcoming the adoption of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (GC(41)/RES/11, adopted, 11 October 1997);
- Welcoming the Agency activities taken in regard to the Measures Against Illicit Trafficking in Nuclear Materials and Other Sources (GC(41)/RES17, adopted, 17 October 1997);
- Calling upon Iraq to cooperate fully with the Agency in the Implementation of the United Nations Security Council Resolutions Relating to Iraq (GC(41)/RES/23, adopted, 23 October 1997); and
- Confirming the urgent need for all parties in the region to immediately accept the application of

IAEA Safeguards in the Middle East and "calling upon all parties directly concerned to consider seriously taking the practical and appropriate steps required for the implementation of the proposal to establish a mutually and effectively verifiable NWFZ in the region" (GC(41)/RES/25, adopted, 25 October 1997).

### **Board of Governors**

In accordance with the statute and the existing practice, the board is responsible for approving safeguards procedures and safeguards agreements, and for the general supervision of the Agency's safeguards activities. The board generally meets five times a year: March, June, before and after the regular session of the General Conference in September, and immediately after the meeting of its Technical Assistance and Cooperation Committee in December. At its meetings, the board also examines and makes recommendations to the General Conference on the IAEA's accounts, program, and budget and considers applications for membership.

The Board of Governors has 35 members, of which 13 are designated by the board and 22 elected by the General Conference.

The newly elected Member States on the board for 2005-2006 are Algeria, Argentina, Australia, Brazil, Belarus, Belgium, Canada, China, Colombia, Cuba, Ecuador, Egypt, France, Germany, Ghana, Greece, India, Indonesia, Japan, Korea, Republic of, Libya, Norway, Portugal, Russian Federation, Singapore, Slovakia, Slovenia, South Africa, Sri Lanka, Sweden, Syria, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela, and Yemen. The chair of the board for this period is Yukiya Amano, ambassador and resident representative from Japan.

Member States represented on the board for 2004-2005 were Algeria, Argentina, Australia, Belgium, Brazil, Canada, China, Ecuador, France, Germany, Ghana, Hungary, India, Italy, Japan, Republic of Korea, Mexico, Netherlands, Nigeria, Pakistan, Peru, Poland, Portugal, Russian Federation, Singapore, Slovakia, South Africa, Sri Lanka, Sweden, Tunisia, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela, Vietnam and Yemen. The chair of the board for this period was Ms. Ingrid Hall, ambassador and permanent representative from Canada.

Member States represented on the Board of Governors for 2003-2004 were Argentina, Australia, Belgium, Brazil, Canada, China, Cuba, the Czech Republic, Denmark, Egypt, France, Germany, Hungary,

India, Italy, Japan, the Republic of Korea, Malaysia, Mexico, the Netherlands, New Zealand, Nigeria, Panama, Pakistan, Peru, Poland, the Russian Federation, Saudi Arabia, South Africa, Spain, Sudan Tunisia, United Kingdom, the United States and Vietnam, Mr. Antonio Núñez Garcia-Saúco of Spain served as Chairman of the Board for the 2003-2004 session. He succeeded the Governor from Kuwait, Ms. Nabeela Al-Mulla.

Member States represented on the IAEA Board for 2002–2003 were Argentina, Australia, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Cuba, Czech Republic, Denmark, Egypt, France, Germany, India, Islamic Republic of Iran, Japan, Kuwait, Malaysia, Morocco, Netherlands, New Zealand, Panama, Philippines, Romania, Russian Federation, Saudi Arabia, South Africa, Spain, Sudan, Switzerland, Turkey, the United Kingdom, and the United States.

The Member States on the Board for 2001-2002 were: Argentina, Australia, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Columbia, Egypt, Finland, France, Germany, Ghana, India, Ireland, Islamic Republic of Iran, Japan, Libyan Arab Jamahiriya, Kuwait, Mexico, Morocco, Pakistan, Peru, Philippines, Romania, Russian Federation, South Africa, Spain, Switzerland, Thailand, Turkey, Ukraine, United Kingdom and the United States.

### **Secretariat**

The IAEA Secretariat carries out programs and activities approved by the Agency's policy-making organs. The Secretariat is headed by the Director General (DG), who is the chief administrative officer and is appointed for a term of four years. The DG is responsible for the appointment, organization, and functioning of the Agency's staff. Four offices report directly to the DG:

- Secretariat of the Policy Making Organs (PMO): Tasked to enable the General Conference and the Board of Governors to effectively perform their statutory responsibilities and their other functions and to ensure that all meetings of the Policy Making Organs are conducted efficiently.
- Office for Internal Oversight Services (OIOS):
   Established to increase the Agency's ability to change through improved management practices, program performance, and enhanced accountability.
- Office of External Relations and Policy Coordination (EXPO): Responsible for formulating and coordinating policies for all areas of the IAEA's program and maintaining effective rela-

tions with Member States, other UN bodies, international organizations, and civil society.

• Office of Legal Affairs (OLA): Established to ensure that the legal aspects of the Agency's functions are appropriately addressed. It provides advice on legal questions relating to the work of the Agency and assistance for the development of nuclear legislation in Member States. It ensures a coordinated approach to legal issues common to the UN system. The Agency has six departments, each of them divided into different sections and headed by a Deputy Director General (Management, Technical Cooperation, Nuclear Energy, Nuclear Sciences and Applications, Nuclear Safety and Security, and Safeguards).

**Department of Technical Cooperation**: This department is responsible for promoting technology sharing. The Technical Cooperation Program is developed jointly by the Secretariat and the Member States. The TC Program is prepared, appraised, implemented, and evaluated in accordance with the provisions of the Agency's Status, the Technical Cooperation Strategy (GOV/INF/824) and the Revised Guiding Principles, and the General Operating Rules to Govern the Provision of Technical Assistance by the Agency (INFCIRC/267), and in accordance with relevant directives of the General Conferences and of the Board of Governors.

**Department of Nuclear Safety and Security:** The Secretariat's Department of Nuclear Safety and Security is responsible for the Agency's efforts to protect people and the environment from radiation exposure. It consists of four programs: Safety of Nuclear Installations, Radiation and Transport Safety, Management of Radioactive Waste, and Nuclear Security.

#### **Developments:**

**2005**: On 3 February, the director general informed States Parties that in accordance with Article 20, paragraph 1 of the <u>Convention on the Physical Protection of Nuclear Material (CPPNM)</u>, the majority of States Parties requesting him to convene a conference to consider the proposed amendments to the convention was reached on 19 January 2005.

On 16-18 March, the International Conference on Nuclear Security: Global Directions for the Future was held in London, England. The conference considered the threat of malicious acts involving nuclear and other radioactive material; the achievements and shortcomings of national and international efforts to strengthen the prevention of, detection of, and response to such acts; and ways to achieve future im-

provements. The conference noted that nuclear terrorism is one of the greatest global threats.

The conference noted that instruments that underpin the international nuclear security framework include the CPPNM and the possible amendment of the CCPNM, the Code of Conduct, other relevant conventions, and IAEA safeguards agreements and the Additional Protocol.

The conference identified the following priorities for strengthening nuclear security: continued efforts to enhance the prevention of terrorist acts, and the physical protection and accountability of nuclear and other radioactive material in a comprehensive and coherent manner.

The conference recognized the leading role of the IAEA for improving the global nuclear security framework and for promoting its implementation.

The conference identified future areas of progress:

- Accelerate efforts to develop and implement a fully effective global nuclear security framework based on prevention, detection and response
- expedite agreement among State Parties on amending the CPPNM
- fully implement the Code of Conduct and an enhanced CPPNM
- Enhance cooperation and coordination at the global, regional, and bilateral levels

On 4 - 7 April, a meeting was held in preparation for the CPPNM Conference, which was attended by 58 States Parties to the Convention (including EURA-TOM). The meeting discussed, inter alia, the Provisional Rules of Procedure for the Conference, the Provisional Agenda of the Conference and its officers

On 4 - 8 July, the Conference to Consider and Adopt Proposed Amendments to the Convention on the Physical Protection of Nuclear Material (CPPNM) was held in Vienna, Austria. 89 States Parties (including EURATOM), and 17 states not yet party to the Convention attended the conference, of which Mr. A. J. Baer of Switzerland served as President.

The Conference used as the basis for its discussions the following documents: the <u>Basic Proposal</u> (<u>Document CPPNM/AC/L.1/1</u>) and the <u>proposal contained in Document CPPNM/AC/L.1/2</u>. At its first meeting, the Conference decided to incorporate the latter proposal into the Basic Proposal to form a revised Basic Proposal (CPPNM/AC/L.1/1/Rev.1).

On 8 July the Conference adopted the Amendment to

the Convention by consensus. The amendment resulted in the following changes to the convention:

- The title Convention on the Physical Protection of Nuclear Materials is replaced with the title Convention on the Physical Protection of Nuclear Materials and Nuclear Facilities.
- A new preamble replaces the preamble of the convention.
- New paragraphs are added and/or replace existing ones.
- In implementing the obligations under paragraphs 1 and 2 of Article 2A, the convention urges each State Party to apply the newly added Fundamental Principles of Physical Protection of Nuclear Material and Nuclear Facilities.

The amendment will be circulated by the depositary to all States Parties and EURATOM. The amendment is subject to ratification, acceptance, or approval, and will enter into force, in accordance with paragraph 2 of Article 20 of the convention.

On 29 August, Director General ElBaradei introduced the Nuclear Safety Review for the Year 2004. This report presents worldwide efforts to strengthen nuclear, radiation, and transport safety and the safety of radioactive waste management. The reports notes that

- By the end of 2004, 69 countries had made political commitments to work towards following the Code of Conduct on the Safety and Security of Radioactive Sources.
- The safety record for the transport of radioactive materials remained excellent.
- Key occupational radiation protection performance indicators continued to improve.
- Many countries still lack a basic level of radiological emergency preparedness.

**2004**: In March, the Board of Governors approved several measures to strengthen international cooperation in nuclear, radiation, and transport safety and waste management:

- <u>Code of Conduct on the Safety of Research Reactors</u>, which establishes guidelines for the licensing, construction, and operation of research reactors
- Action Plan for the Development and Application of IAEA Safety Standards, which covers thematic areas as well as activities and facilities
- International Action Plan on the Radiation Protection of the Environment from the Effects of Ionizing Radiation

Action Plan for the Safety of Transport of Radioactive Material, which provides direction for IAEA transport safety activities over the next five years. Action areas include review and revision of the Regulations for the Safe Transport of Radioactive Material, refining of the review process, compliance and quality assurance considerations, the issue of denial of shipments, emergency response, liability, and communication

On 5 July, the IAEA Director General circulated proposed amendments to the Convention on the Physical Protection of Nuclear Material (CPPNM) suggested by the Governments of: Australia, Australia, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Finland, France, Greece, Hungary, Ireland, Italy, Japan. Lithuania, Luxemburg, Norway, Poland, Portugal, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland and the United States.

This <u>Basic Proposal</u> is a result of consultations on the Final Report of the Open-Ended Group of Legal and Technical Experts to Prepare a Draft Amendment of the CPPNM.

On 18-22 October, the Conference on Topical Issues in Nuclear Installation Safety: Continuous Improvement of Nuclear Safety in a Changing World was held in Beijing, China. The conference developed an international consensus on the following approaches to nuclear safety: harmonizing regulatory standards for nuclear installations, fostering an environment conducive to becoming "learning organizations," and developing safety standards for extended, long-term operations.

As of December, the IAEA's Illicit Trafficking Database contains 662 confirmed incidents involving illicit trafficking and other related unauthorized activities involving nuclear and other radioactive materials. which have occurred since 1 January 1993. Of the 662 confirmed incidents, 196 incidents involved nuclear materials; 400 incidents involved other radioactive materials, mainly radioactive sources; 24 incidents involved both nuclear and other radioactive materials; and five incidents involved other materials. The majority of the confirmed incidents involved criminal activities, e.g. theft, illegal possession, smuggling, or attempted illegal sale of the materials. In 2003-2004, the number of incidents reported by states to the ITDB substantially increased. Improved reporting may in part account for it.

In 13-17 December, the <u>International Symposium on the Disposal of Low Activity Radioactive Waste</u> was held in Cordoba, Spain. The symposium served as a forum to discuss policies and strategies for low-level waste management. One of the main findings at the symposium was that the IAEA classification scheme should be revised to be more closely linked to an overall scheme for managing all types of radioactive waste.

2003: The Office of Nuclear Security (formerly the Office of Physical Protection and Material Security, located in the Department of Safeguards) was combined with the Department of Nuclear Safety, effective as of January 2003. The newly established Department of Nuclear Safety and Security is expected to implement the nuclear security program more effectively and coordinate the synergies between the agency's safety and security activities.

More than 750 participants from 123 Member States and 12 international organizations attended the International Conference on Security of Radioactive Sources, held 10-13 March 2003. Among the topics discussed were the importance of recovering and securing high-risk radioactive sources, interdicting illicit trafficking of radioactive material, improving long-term security measures for radioactive sources, and responding appropriately to radiological emergencies involving the malicious use of radioactive sources. The conference produced two major findings:

- An international initiative should be launched to facilitate the worldwide location, recovery, and security of high-risk radioactive sources not under secure and regulated control.
- To promote the establishment and maintenance of effective national nuclear regulatory and security systems, states should adhere to the Code of Conduct on the Safety and Security of Radioactive Sources (currently being revised) as well as the security requirements in the International Basic Safety Standards for Protection Against Ionizing Radiation and for the Safety of Radiation Sources. Governments should be encouraged and assisted in their efforts to establish and maintain effective national infrastructures, and the IAEA should promote broad adherence to the Code of Conduct once its revised version has been approved.

From 3 to 14 March, a group of legal and technical experts held its last meeting to prepare its recommendation on a well-defined amendment to the CPPNM. The group adopted a final report that would extend the scope of the CPPNM to cover, inter alia,

the physical protection of nuclear material in domestic use, storage, and transport, and the protection of nuclear materials and facilities against sabotage. However, the prepared text still contains a number of bracketed clauses on which the group was not able to reach agreement. The IAEA DG distributed the Final Report to the States Parties in June and urged them to work rapidly towards consensus on the text in order to have a Diplomatic Conference to adopt the proposed amendments at an early date.

2002: On 19 March 2002, the IAEA Board of Governors approved in principle a plan of action to upgrade worldwide protection against acts of terrorism involving nuclear or radioactive materials. The action plan consists of eight activity areas: physical protection of nuclear material and nuclear facilities; detection of malicious activities (such as illicit trafficking) involving nuclear and other radioactive materials; strengthening of State systems for nuclear material accountancy and control; security of radioactive sources; the assessment of safety and security related vulnerabilities at nuclear facilities; response to malicious acts or threats thereof; the adherence to international agreements and guidelines: and enhancement of program co-ordination and information management for nuclear security-related matters. In recognition that security measures are the responsibility of each State, IAEA activities are meant to complement the protection measures taken by the individual States. Activities that fall under the action plan will primarily be financed from the extra budgetary Nuclear Security Fund.

**Department of Safeguards:** The Department of Safeguards carries out practical safeguarding activities. It has a staff of approximately 200 inspectors and a support staff of 300.

Safeguards Agreements: The safeguards system establishes legally binding agreements between States and the IAEA pursuant to the commitments made under international and regional nonproliferation agreements. These measures verify that the declarations made by States about their nuclear materials and activities are both bilateral and multilateral in nature and are the basis of the IAEA's verification functions. Most are known as "full scope" or "comprehensive" agreements because they extend to all peaceful nuclear activities and nuclear material in a State.

As of 22 September 2005, 153 NPT non-nuclear weapon states (out of a total of 183) have NPT Safeguards Agreements in force with the IAEA. Currently, 106 States have signed the Additional Protocol, 112 have been approved by the Board, and 69 States have already entered it into force.

The Additional Protocol: Responding to the discovery of Iraq's clandestine nuclear weapons program, North Korea's hidden reprocessing facility, and the loophole that allowed "undeclared facilities" to be outside the reach of IAEA verification, the Agency sought to strengthen its system of safeguards. The Board drafted a safeguards improvement program known as "Program 93+2." The plan, created in 1993, was meant to be implemented by 1995, in time for the NPT review conference. Putting Program 93+2 into effect, however, took more time than expected, and the program has been implemented in two parts. The first part, initiated in January 1996, involved new types of monitoring such as environmental sampling and use of no-notice inspections at key measurement points within declared facilities. It did not require any new legal authority to implement. The first part also includes some new methods of remote monitoring and analysis.

The second part of Program 93+2, which substantially expands the scope of the IAEA's safeguards regime, required a formal expansion of the Agency's legal mandate in the form of an Additional Protocol to be adopted by Member States to supplement their existing Safeguards Agreements with the IAEA. The essence of the Additional Protocol is to reshape the IAEA's safeguards regime from a quantitative system focused on accounting for known quantities of materials and monitoring declared activities to a qualitative system gathering a comprehensive picture of a State's nuclear and nuclear-related activities, including nuclear-related imports and exports. The Additional Protocol also substantially expands the IAEA's ability to check for clandestine nuclear facilities by providing the agency with authority to visit any facility —declared or not— and to investigate questions or inconsistencies in a State's nuclear declarations.

Multilateral Arrangements for the Nuclear Fuel Cycle: In June of 2004, Director General ElBaradei commissioned an experts group to look into arrangements for a multilateral nuclear fuel cycle after stating that the wide dissemination of sensitive parts of the fuel cycle could potentially be creating a proliferation hazard. He stated that this could be considered the "Achilles heel" of the nonproliferation regime. In theory a State with a fully developed fuel cycle also has the requisite materials, know-how, and technology for producing weapons-grade materials; this State could then, for whatever reason, decide to withdraw from the NPT while retaining its nuclear-weapons capabilities.

Five approaches to strengthen controls over fuel enrichment, reprocessing, spent fuel storage, and repositories were identified by the group in its report.

In the interest of assurance of fuel supply, the group recommended reinforcing existing commercial market mechanisms as well as developing and implementing international supply guarantees, with the IAEA acting as guarantor. Multilateralization of the fuel cycle promoted voluntary conversion of existing facilities to shared arrangements under voluntary agreements and contracts and stressed the need for broader cooperation among the IAEA and the international community toward that goal. The group's report is to be circulated to all IAEA Member States and will also be submitted to the 2005 NPT Review Conference.

Committee on Assurances of Supply (CAS): An Ad Hoc Committee established by the Board of Governors in 1980, to seek agreement between supplier and recipient States on a regime that would assure the latter more dependable supplies, under adequate international nonproliferation safeguards. The CAS Bureau periodically holds informal consultations and has recommended the Secretariat's preparation of papers on the global supply and demand situation, the latest of such papers was prepared for the Board of Governors' consideration in September 1994.

### **Developments:**

**2005:** On 14 June, the director general, in a statement to the Board of Governors, noted the proposal by the United States aimed to establish a committee to consider ways and means to strengthen the safeguards system. The director general expressed his hope that the board will be in a position to act on this proposal at its June session.

On 23 September, the Board of Governors agreed on modifications to the Small Quantities Protocol (SQP) to strengthen the safeguards system. The modifications require states to provide initial reports to the IAEA on all their nuclear material and early design information for any planned nuclear facilities, and reinstate the IAEA's right to conduct inspections in SQP states. The previous SQP text did not require states to report small amounts of nuclear material to the IAEA.

**2004:** In its <u>Safeguards Statement</u>, the IAEA drew the following conclusions based upon the evaluation of all information available to the IAEA for 2004:

- Safeguards were applied for 152 states with safeguards agreements in force with the agency.
- With regard to 61 states with both CSAs and APs in force or otherwise applied, the agency concluded that all nuclear material in those states remained in peaceful nuclear activities or has been otherwise adequately accounted for.

- For 37 states, evaluations regarding the absence of undeclared nuclear material and activities remain in progress.
- Iran, Libya, and North Korea had been found to have been previously engaged in nuclear activities of varying significance, which they had failed to report. Verification of the correctness and completeness of their respective declarations is ongoing.

**2003**: On 16 June, the Board of Governors met for its second meeting of 2003. The agenda consisted of a broad range of issues, including the agency's Annual Report for 2002, the Technical Co-operation Report for 2002, the report of the Program and Budget Committee, as well as nuclear verification and the prevention of nuclear terrorism. On 18 June, the meeting focused attention on Iran's failure to comply with IAEA safeguards. The board considered an agency report following a series of visits to Iran by Director General Mohamed ElBaradei and other senior IAEA officials following allegations that Iran is completing two secret nuclear facilities—a uranium enrichment facility at Natanz and a heavy water production plant near Arak. The report indicated that Iran failed to meet its obligations under its IAEA Safeguards Agreement with respect to the reporting of nuclear material, the subsequent processing and use of that material, and the declaration of facilities where the material was stored. The chair of the board, Kuwaiti Ambassador Nabeela Al-Mulla, referred to the findings of the IAEA report on Iran in her summary of the meeting, thereby reflecting the board's concern that Iran failed to meet its obligations under its safeguards agreement (for further information, see Safeguards non-compliance, below).

The primary issues addressed in the 2002 Annual Report were nuclear safety, nuclear security, compliance, nuclear terrorism, and the strengthening of safeguards. ElBaradei noted specifically the need for comprehensive assurances and integrated safeguards for a more effective and efficient IAEA verification system. The draft Annual Report for 2002 summarizes the scope and results of agency activities throughout the year, with an introductory chapter that considers the agency's work within the context of overall nuclear developments and key related issues.

On 18 July, following intense consultations among Member States, the Program and Budget Committee (PBC) agreed upon the program and budget for 2004-2005. The proposed <u>budget</u>, which was approved by the General Conference on 18 September, marks the first significant increase in the agency's funding since the late 1980s. The current regular budget of \$245 million will see an initial increase of \$15 million, and

it is slated to grow to \$25 million by 2007. The majority of the increase will go toward the verification program, which has increasingly had to rely on extrabudgetary funds to fulfill its growing number of mandates.

**2002:** The Board of Governors approved a "blueprint," which is known as "The Conceptual Framework for Integrated Safeguards," in its meeting held on 18-22 March 2002. The blueprint represents a new approach to safeguards implementation; it integrates all the safeguards measures that are now available to the Agency in an optimum way. This framework will guide the Secretariat in fulfilling its ongoing safeguard obligations and responsibilities.

2001: The Board of Governors held its meeting in Vienna on 11-14 June 2001 to review the implementation of IAEA safeguards in the year 2000. The Board concluded that in 2000 in the 140 States (and Taiwan or China), which had Safeguards Agreements in force, the Agency found no indication of diversion of nuclear material placed under safeguards or of misuse of facilities, equipment, or non-nuclear material placed under safeguards. For seven States, which have a comprehensive Safeguards Agreement and an Additional Protocol in force or being provisionally applied, the Agency concluded that all nuclear material in these States had been placed under safeguards and was used for peaceful purposes.

2000: On 5-8 June 2000, the Board of Governors reviewed the implementation of IAEA safeguards in the past year. In 1999, the IAEA concluded that in States with Safeguards Agreements in force, declared nuclear material and other items placed under safeguards remained in peaceful nuclear activities or were otherwise adequately accounted for. The Secretariat found no indication that the nuclear material, which had been declared and placed under safeguards, had been diverted for any military purpose or for purposes unknown, or that facilities, equipment, or non-nuclear materials placed under safeguards were being misused.

1997: On 16 May 1997, the Board of Governors approved new strengthened measures for use by its inspectors who verify States' compliance with their commitments not to produce nuclear weapons. The new measures are detailed in an agreed Protocol under which countries would accept stronger, more intrusive verification on their territories. The key objective of the new measures is to enhance the IAEA's capability to detect possible clandestine nuclear activities in NNWS and thus to increase confidence that these States are abiding by their obligations. However, while the protocol is part of a plan for strengthened and more efficient safeguards in NNWS, it also

contains measures that could improve safeguards in other States, including nuclear weapon States. These new measures provide enhanced access for inspectors-access to more information about States' nuclear programs, current and planned, and access to more locations on their territories. Inspectors will have access not only to nuclear sites but also to other locations that could contribute to a nuclear program. such as research or manufacturing facilities. The new measures include use of state-of-the-art technologies to trace nuclear activity through samples taken from the environment and remote operation surveillance and monitoring systems at key locations in the inspected State. States accepting the protocol will also be required to simplify the designation of inspectors and visa requirements for them, thus facilitating inspections at sites on short notice. Many of the new measures have undergone extensive field trials in cooperating Member States and build on reinforcing steps already implemented under the IAEA's existing legal authority.

### **Questions of Compliance:**

This section covers questions related to compliance with safeguards agreements by the <u>Republic of Korea</u>, <u>Egypt</u>, <u>Iran</u>, <u>Libya</u>, the <u>Democratic People's Republic of Korea</u>, and Iraq.

### THE REPUBLIC OF KOREA:

**2004:** On 19 February, the Additional Protocol between the ROK and the IAEA entered into force.

On 23 August, during initial discussions between the agency and the Republic of Korea (ROK) on its declaration of nuclear materials and activities contingent on its acceptance of its Additional Protocol, ROK revealed to the agency that rogue scientists within the country had conducted laboratory-scale experiments to enrich uranium past the civil enrichment level. The board meeting of 13 September 2004 stated that, while these activities were considered a breach of the ROK's prior commitments, they did not constitute a proliferation hazard since they were conducted in only insignificant quantities.

#### EGYPT:

**2005:** In January, a circumstance similar to that of the ROK's transpired, in which it was reported that Egypt had engaged in unreported uranium conversion activities, with most of the work carried out in the 1980s and 1990s. In response to the situation, the director general, on 28 February 2005, was quoted as saying, "It is regrettable that some activities have not been reported to us, although, again as we have said

before we haven't seen a proliferation concern." However, he went on to stress that states must take their reporting and nonproliferation obligations with the upmost seriousness. This matter was not referred to the board.

#### IRAN:

Iran ratified the NPT on 2 February 1970 as one of the original signatory states and concluded its comprehensive Safeguards Agreement (INFCIRC/ 214) with the IAEA on 15 May 1974. By the mid-1970s, Iran initiated a nuclear power program, but the 1979 revolution ended all nuclear efforts until 1984, when Iran revived its nuclear power program. Iran's plans for building a civilian nuclear power program have prompted much concern among some Western countries, in particular the United States. Although the NPT allows transfers of nuclear technology for peaceful purposes to non-nuclear weapon states, the United States has been strongly opposed to such cooperation with Iran as it believes that Iran is misusing this provision of the NPT to obtain and develop technologies and materials for a clandestine nuclear weapons program. On 18 December 2003, Iran signed the Additional Protocol to its safeguards agreement with the IAEA (INFCIRC/540), which provides for a substantial expansion of the IAEA's authority to visit any facility -declared or not- to check for clandestine nuclear facilities and to investigate any questions or inconsistencies arising from Iran's comprehensive safeguard declarations. Although Iran has stated that it is acting in accordance with the Protocol's provisions, ratification by its parliament remains a necessary condition its entry into force.

**2006**: On 3 January, the director general informed the Board of Governors of Note Verbale in which Iran notified the IAEA of its decision to resume "R&D activities on the peaceful nuclear energy programme which has been suspended as part of its expanded voluntary and non-legally binding suspension."

On 10 January, IAEA inspectors confirmed that Iran had begun to remove IAEA seals on its enrichment-related equipment and material at Natanz. On 7 January 2006, Iran requested that the agency remove, before 9 January 2006, specified seals at Natanz, Pars Trash and Farayand Technique. Based on the information currently available, the removal of agency seals at the enrichment site at Natanz, and at two related storage and testing locations, Pars Trash and Farayand Technique, will be completed by 11 January 2006. The cascade hall and UF6 feed and with-

drawal stations at the Pilot Fuel Enrichment Plant (PFEP) at Natanz will continue to be covered by agency containment and surveillance measures. Director General ElBaradei expressed concern over Iran's decision to terminate the suspension of enrichment-related activities requested by the IAEA Board of Governors before the agency has clarified the nature of Iran's nuclear program.

On 13 January, the IAEA received a document for circulation entitled "E3/EU Statement on the Iran Nuclear Issue" from the United Kingdom, France, and Germany that reports on a meeting in Berlin, 12 January 2006. The statement finds that Iran's decision to restart enrichment activity "a clear rejection of the process the E3/EU and Iran have been engaged in for over two years with the support of the international community." It goes on to state that Iran continues to challenge the authority of the IAEA board and stresses the need to respond firmly to this challenge. In their statement, the E3/EU conclude that the involvement of the Security Council is necessary in reinforcing the authority of IAEA resolutions and signal their intention to call for an "Extraordinary IAEA Board meeting with a view for it to take the necessary action to that end."

On 18 January, the representatives of France, Germany, and the United Kingdom sent a letter to the chair of the IAEA Board of Governors requesting that a special meeting be held to discuss the implementation of IAEA safeguards in Iran and related board resolutions. The special meeting has been scheduled for 2 February.

On 24 January, Iran submitted a Note Verbale to the IAEA entitled "Short Glance on Iranian Nuclear Issue" to the IAEA, requesting it be distributed as an information circular (INFCIRC/665) for all member states. The document provided an account of developments, particularly in the past three years, that "reveals the facts confirming the exclusive nature of [the] Iranian nuclear program and activities and full cooperation with [the] international community." According to Iran, this review is also intended to demonstrate that "the international community has been, to a great extent misled with bias[ed], politicized and exaggerated information on Iranian nuclear programs and activities." Iran emphasized that the decision to suspend enrichment activities was strictly a voluntary and non-legally binding measure and claims that now that the issue of contamination that had triggered such a decision has been resolved, "there is no need for the Iranian Government to further deprive its nation from its inalienable right in doing research."

On 31 January, the Foreign Ministers of China, France, Germany, Russia, the United Kingdom, the United States, and the High Representative of the European Union issued a statement on Iran after their meeting in London the previous day. The statement "called on Iran to restore in full the suspension of enrichment-related activity, including R&D, under the supervision of the IAEA." The ministers reached an agreement that the IAEA board meeting should report to the Security Council its decision on the steps required from Iran, but also that the Security Council should await the director general's report to the March meeting of the IAEA board before deciding to take action.

On 2 February, the Board of Governors convened at a special meeting on Iran's nuclear program. In briefing the press, the director general remarked that this meeting does not signal the end of diplomacy and that there is still a window of opportunity to resolve this issue through negotiations. He expressed his hopes that Iran would "continue to cooperate with the Agency, to clarify remaining outstanding issues."

On 3 February, Iran requested the circulation of a letter to the director general from Dr. Larijani, secretary of the Supreme Security Council of Iran. The letter stated that the board decision to report the issue to the Security Council lacks legal and technical basis. Iran claims that "the resumption of R&D activities...cannot provide the ground for taking harsh decisions by the Board and reporting the issue to the Security Council. Those activities are exclusively peaceful and completely within the IAEA legal framework...." The letter goes on to state that if the board were to reach the decision to refer Iran to the Security Council, Iran "would have no other choice but to suspend all the voluntary measures and extra cooperation with the Agency."

On 4 February, the Board of Governors passed a resolution (GOV/2006/14) requesting the director general to report to the UN Security Council all IAEA reports and resolutions, as adopted, relating to the implementation of safeguards in Iran. The resolution calls on Iran to "re-establish full and sustained suspension of all enrichment-related and reprocessing activities, including research and development, to be verified by the Agency; reconsider the construction of a research reactor moderated by heavy water; ratify promptly and implement in full the Additional Protocol; pending ratification, continue to act in accordance with the provisions of the Additional Proto-

col; implement transparency measures, as requested by the Director General, including in GOV/2005/67, which extend beyond the formal requirements of the Safeguards Agreement and Additional Protocol." The resolution further requests the director general to "report on the implementation of this and previous resolutions to the next regular session of the Board, for its consideration, and immediately thereafter to convey, together with any Resolution from the March Board, that report to the Security Council." The resolution also contains a clause expressing support for a nuclear-free Middle East.

The resolution was adopted by a vote of 27 in favor, 3 against, and 5 abstentions. (For: Argentina, Australia, Brazil, Belgium, Canada, China, Colombia, Ecuador, Egypt, France, Germany, Ghana, Greece, India, Japan, Republic of Korea, Norway, Portugal, Russian Federation, Singapore, Slovakia, Slovenia, Sri Lanka, Sweden, United Kingdom, United States, and Yemen. Against: Cuba, Syria, and Venezuela. Abstentions: Algeria, Belarus, Indonesia, Libya, and South Africa).

On 27 February, Director General ElBaradei issued another report (GOV/2006/15) for the Board of Governors to consider in its meeting on 6 March. The report states that, although the IAEA has not seen indications of diversion of nuclear material to nuclear weapons or other nuclear explosive devices, there remain uncertainties with regard to both the scope and the nature of Iran's nuclear program. The two outstanding issues concerning the origin of LEU and HEU particle contamination found at various locations in Iran and the extent of Iran's efforts to import, manufacture, and use centrifuges of both the P-1 and P-2 designs require further clarification. The director general urged Iran to provide full transparency and take necessary measures to build confidence.

On 6 March, the Board of Governors convened in a meeting to review the director general's 27 February report and discuss Iran's nuclear program among other agenda items. No resolution was adopted but instead the board agreed to a carefully worded summary prepared by its chair, Ambassador Amano from Japan. The Chairman's Summary highlighted the division within the board. It indicated that some members expressed regret at the lack of implementation of the confidence-building measure requested of Iran and at Iran's declared intention to suspend the voluntary implementation of non-legally binding measures, including the Additional Protocol. It also showed that other members expressed frustration at the slow pace of progress of the IAEA's work in clarifying outstanding questions relating to Iran's

nuclear program and that the agency is still unable to provide assurance as to the absence of undeclared nuclear materials and activities in Iran. On the other end of the spectrum, the summary revealed that members recognized that Iran had taken corrective and continued transparency measures. They encouraged Iran's continued cooperation with the IAEA and also "re-emphasized the distinction between voluntary confidence building measures and legally binding safeguards obligations." Some other members emphasized that Iran's nuclear issue should be addressed within the context of the establishment of a nuclear-weapon-free zone in the Middle East.

In accordance with the resolution adopted on 4 February, the director general's report on Iran's nuclear program was transmitted to the Security Council on 8 March, at the close of the meeting. On briefing the press, Director General ElBaradei once again emphasized the importance of diplomacy prevailing and the need to prevent further escalation of tension. In this regard, the director general advised all the states involved to tone down their rhetoric and also to seek a "cool-headed approach." He stated that the IAEA will continue with its verification work and ask Iran to heighten its level of transparency. At the same time, the Security Council will be tasked to deliberate this issue and to "lend its weight to the IAEA's efforts so as to make sure Iran will work as closely as possible" with the agency.

On 28 April, the Director-General submitted his latest report on Iran's implementation of its safeguards agreement to the Board of Governors and the UN Security Council. This report was prepared at the request of the Security Council in its presidential statement on 29 March 2006. The Security Council statement requested "in 30 days a report from the Director-General of the IAEA on the process of Iranian compliance with the steps required by the IAEA Board, to the IAEA Board of Governors and in parallel to the Security Council for its consideration." In anticipation of the Director-General's report, Iran submitted a letter in which it indicated its willingness to cooperate in terms of complying with the Additional Protocol, provided that the case is dropped by the Security Council and returned to the IAEA.

The Director-General's report did not reflect any elements of progress in the IAEA's verification work in Iran. As had been in the case of all previous reports, this latest report does not provide conclusive evidence that Iran's nuclear program is not designed exclusively for peaceful purposes. Moreover, the report confirmed Iran's claims to have enriched uranium to the level of 3.6%. With regards to Iran's

statements in press reports that it is conducting research and development on and testing P-2 centrifuges, a more sophisticated type of enrichment technology, the Director-General's report does not offer any further insights. The report reiterated the calls in previous reports in urging Iran's full cooperation and transparency, "transparency that goes beyond the measures prescribed in the Safeguards Agreement and Additional Protocol." The report noted with regret that Iran has not been forthcoming with implementing these additional transparency measures. This fact, in addition to Iran's decision to cease implementation of the Additional Protocol in February 2006. has severely impeded the IAEA's verification work in providing clarification on the outstanding issues and assurance as to the absence of undeclared nuclear material and activities. According to the report, while the safeguards system of the IAEA remains indispensable in verifying a state's compliance with its treaty obligations, it is not equipped with the means to verify a state's "future compliance or intentions."

On 8 June, the Director-General circulated his latest report (GOV/2006/38) for the board members to consider at its meeting that convenes on 12 June. The report covers developments since April and reflects the stalled progress in resolving outstanding verification issues. Iran has continued to withhold important information that could provide the key to mending gaps in understanding in the agency's verification work, such as the 15-page document "describing the procedures for the reduction of UF6 to uranium metal and the casting and machining of enriched and depleted uranium metal into hemispheres." Furthermore, the report details recent Iranian nuclear activity, which includes resumption of uranium enrichment. The report states that on 6 June 2006, Iran "started feeding UF6 into the 164-machine cascade." In addition, according to the report, Iran is continuing its installation work begun in April on other 164centrifuge networks.

2005: On 2 March, after the board's meeting, the director general commented that while the agency has no new revelations on Iran's nuclear program, it is making good progress in understanding its nuclear activities, particularly with regard to the outstanding issue of enrichment. However, the director general stressed the need for additional information and transparency from Iran. In a parallel development, the director general expressed the agency's support in negotiations between Iran and the European Union supported EU3 (United Kingdom, France, and Germany), and, recently, the United States. These multilateral talks seek to reach a solution on Iran's declared capacity of enrichment. The board also con-

sidered a U.S. proposal to create a special board committee to look into the Iran issue. However, after opposition from a broad spectrum of members, no final decision was reached on the proposal. Although no action was taken by the board, the issue of Iran's nuclear program will continue to stay on the board's agenda.

On 14 June, the director general <u>briefed</u> the board on IAEA verification activities in Iran. The statement notes the agency's verification of Iran's voluntary enrichment suspension. The director general stated progress was made by the IAEA in identifying the origin of the low- and highly enriched uranium contamination on centrifuges and verifying information provided by Iran regarding its enrichment programs.

On 1 August, Iran issued a Note Verbale (INFCIRC/648) informing the IAEA that it had "decided to resume the uranium conversion activities at UCF [Uranium Conversion Facility] in Isfahan on 1 August 2005." Iran requested the IAEA "to be prepared for the implementation of the Safeguards related activities in a timely manner prior to the resumption of the UCF activities."

On 11 August, the Board of Governors adopted resolution GOV/2005/64 regarding the implementation of IAEA safeguards in Iran. The resolution expresses serious concern over Iran's decision to resume conversion activities at the Uranium Conversion Facility in Isfahan. It urges Iran to re-establish full suspension of all enrichment-related activities on the same voluntary, non-legally binding basis as requested in previous board resolutions, and to permit the director general to reinstate the seals that have been removed at the Uranium Conversion Facility in Esfahan.

On September 2, the director general <u>reported</u> to the Board of Governors on the developments related to the implementation of IAEA safeguards in Iran since November 2004. The report notes

- IAEA analysis supports Iran's claim that HEU contamination on its centrifuges stems from Pakistan.
- Developments in four areas relate to the IAEA's verification of Iran's P-1 centrifuge enrichment program.

On 24 September, the Board of Governors adopted resolution <u>GOV/2005/77</u> regarding the implementation of IAEA safeguards in Iran. The resolution finds that Iran's many failures and breaches of its obligations to comply with its NPT Safeguards Agreement constitute noncompliance in the context of Article XII.C of the agency's statute.

The resolution states that "the history of concealment of Iran's nuclear activities referred to in the Director General's report, the nature of these activities, issues brought to light in the course of the Agency's verification of declarations made by Iran since September 2002 and the resulting absence of confidence that Iran's nuclear programme is exclusively for peaceful purposes have given rise to questions that are within the competence of the Security Council, as the organ bearing the main responsibility for the maintenance of international peace and security."

The resolution was adopted by a vote of 22 in favor and 1 against; there were 12 abstentions. (For: Argentina, Australia, Belgium, Canada, Equador, France, Germany, Ghana, Hungary, India, Italy, Japan, Republic of Korea, Netherlands, Peru, Poland, Portugal, Singapore, Slovenia, Sweden, UK, USA. Against: Venezuela. Abstain: Algeria, Brazil, China, Mexico, Nigeria, Pakistan, Russia, South Africa, Sri Lanka, Tunisia, Vietnam).

On 26 September, the director general, in a statement to the Forty-Ninth Regular Session of the IAEA General Conference, stated that "Iran has failed in a number of instances over an extended period of time to meet its obligations under its Safeguards Agreement." The director general urged Iran is cooperating with the IAEA, acknowledging that Iran is "a special verification case that requires additional transparency measures as a prerequisite for the Agency to be able to reconstruct the history and nature of all aspects of Iran's past nuclear activities, and to compensate for the confidence deficit created."

On 17 November, in response to the 24 September resolution, Iran submitted a <u>letter</u> to the IAEA rejecting the resolution as "unfair and imbalanced." The letter explained Iran's reservations regarding the legality and language of the resolution by analyzing each paragraph separately. Iran pointed out that the Board of Governors' request for Iran to ratify promptly the Additional Protocol is invalid because it lies outside the board's mandate.

On 18 November, Director General ElBaradei <u>briefed</u> the board on developments regarding Iran's safeguards agreement. The director general stated that

- Iran made available more information to the IAEA on its involvement in the A.Q. Khan network; the IAEA is still examining documentation on centrifuge technology related to the 1987 offer
- issues still remain to be resolved on the genesis of the mid-1990s offer relating to the P-2 enrichment program
- Iran has continued to act as if its Additional Protocol were in force.

On 24 November, the director general reported to the Board of Governors that Iran had provided additional documentation, permitted interviews with relevant individuals, and allowed further access. While the agency intends to continue its efforts to clarify the extent and nature of Iran's nuclear program, Iran was urged to cooperate further on the scope and chronology of its centrifuge enrichment program. However, the agency observed no deviations from Iran's voluntary suspension of enrichment activities, and the board adopted no resolution on the issue.

**2004:** On 24 February, Director General ElBaradei issued a <u>report</u> detailing the Agency's findings following a series of inspections at key sites in Iran throughout January and February. This report cited a number of concerns that the Agency hopes to clarify in the future, including the following points:

- While Iran's claim that its Uranium Conversion Facility (UCF) under construction at Esfahan is being built on the basis of drawings and technical support from a foreign supplier appears to be credible, there are still questions regarding the intended use of the uranium metal to be produced at this facility.
- "Given the size and capacity of the equipment used [in Iran's conversion experiments], the possibility cannot be excluded that larger quantities of nuclear material could have been involved than those declared by Iran as having been consumed and produced during testing and experimentation."
- Environmental samples of uranium contamination differ in enrichment levels between domestic and imported centrifuge components and in type between the Kalaye Electric Company and Natanz, thereby raising questions about Iran's claim that contamination came solely from imported components.
- While Iran provided details of its P-1 centrifuges, it failed to mention its possession of P-2 centrifuge designs in its October 2003 declaration. Its admission of such possession occurred only after an inquiry on the part of the IAEA in January of 2004. This initial omission is seen by the Agency as running counter to Iran's declaration. In addition, the nature and scope of Iran's activities involving these centrifuge designs will need future clarification.
- The nature and scope of Iran's laser isotope enrichment research and its associated equipment is in need of clarification.

- On 5 March, Iran issued a <u>Note Verbale</u> (INFCIRC/628) commenting on the 24 February Report by the Director General to, "clarify a number of inadvertent omissions in the report and augment the information in other parts." In this communication Iran:
- Emphasized its adherence to the Additional Protocol prior to its ratification by the Parliament, as well as its granting of a number of complementary accesses;
- Reaffirmed that the centrifuge components that Iran imported were previously used, a fact confirmed by third-party investigations, thereby "shedding light on the source of contamination for which Iran cannot provide a conclusive account";
- Clarified that the bismuth irradiation project was aborted 13 years ago, and observed that declaration of bismuth irradiation is not required under the Safeguards Agreement;
- Surmised that Iran was not required to provide the Agency with information on its P-2 designs as "neither construction of a nuclear facility nor nuclear material was involved";
- Indicated that Iran received general engineering designs only for the P-2 centrifuge, and did not obtain manufacturing designs or components from the intermediary; and
- Asserted that research projects involving uranium conversion at the Tehran Nuclear Research Centre and the Esfahan Nuclear Technology Centre were not confidential, as reflected in the presentation of papers on uranium conversion at the International Conference on Nuclear Science and Technology held at Bushehr in 1985 and the detailed information regarding Iranian uranium conversion activities present in the IAEA fellowship application forms by AEOI experts.

On 13 March, the Board of Governors met to approve draft resolution GOV/2004/20 regarding the implementation of IAEA safeguards in Iran. During this meeting, the Iranian delegation claimed that many of the previous outstanding issues had been resolved, and pointed to the Director General's repeated statements describing the implementation of IAEA safeguards in Iran as a "work in progress," and praising Iran's "extensive active cooperation." According to Iran, the only outstanding issue is the contamination of uranium enriched to beyond 1.2 percent, which Iran claimed had been difficult to resolve due to the involvement of a foreign source. Most delegations offered qualified praise for Iran's cooperation with the Agency. They urged Iran to be more forthcoming in the future to resolve all outstanding issues and to

ratify the Additional Protocol. The United States, Canada, and Australia however, expressed serious concern over Iran's explanations of some of its program's sensitive issues. The U.S. delegation compared Libya's voluntary renunciation of its pursuit of weapons of mass destruction, with Iran's, "policy of denial, deception and delay." According to the United States, the resolution adopted on 13 March, "made it clear that Iran had yet to discharge the obligation of full cooperation, compliance, and transparency essential to the fulfillment of its legal commitments."

In spite of these differing assessments of Iran's cooperation with the Agency, the Board of Governors decided to adopt GOV/2004/20 without a vote. This resolution deferred both the consideration of Iran's degree of compliance with IAEA safeguards, and the Board's response to a number of omissions from Iran's declarations until its June meeting. The resolution also welcomed Iran's voluntary suspension of enrichment activities and its signature of the Additional Protocol. However, it also expressed concern over the outstanding issues described in the Director General's reports. In particular:

- Iran's omission of its P-2 centrifuge designs in its October 2003 declarations:
- The unsubstantiated purpose of "Iran's activities related to experiments on the production and intended use of poilonium-210";
- LEU and HEU contamination at the Kalaye Electric Company and Natanz; and
- The nature and scope of Iran's laser isotope enrichment research.

To address these concerns, the resolution called on Iran to "be pro-active in taking all necessary steps on an urgent basis to resolve all outstanding issues."

During the 2004 NPT PrepCom held between 26 April and 7 May, the United States used the conference as an opportunity to condemn Iran's alleged pursuit of a nuclear weapons program, pointing to Iran's failure to fully comply with its Safeguards Agreement.

On 21 May, Iran submitted its initial declarations pursuant to its Additional Protocol.

On 1 June, the Director General issued a <u>report</u> detailing the Agency's progress with the implementation of safeguards in Iran. While this report continued to find that Iran had engaged in a high degree of cooperation with the Agency, there are a number of issues that have yet to be fully resolved, including the following:

- After stating that it had not received P-2 centrifuge components from abroad, Iran revealed that it had in fact acquired magnets relevant to P-2 centrifuges from Asian suppliers. On 30 May, Iran provided the Agency with information on the quantities and sources of these imported magnets. In addition, Iran admitted to making inquiries with a European intermediary regarding the procurement of 4,000 magnets suitable for use in P-2 centrifuges, although no magnets have been delivered by the intermediary.
- While Iran has provided additional evidence to clarify the discrepancy between the enrichment levels of the uranium contamination found at the Kalaye Electric Company, Natanz, and Farayand Technique, Agency experts believe more information will be required before this issue can be resolved. Although Iran claimed that it does not know the origin of this equipment, it has identified some of the intermediaries involved. The Agency has questioned these intermediaries and has concluded that, without additional information, "it is unlikely that the Agency will be able to conclude that the 36 percent uranium-235 contamination found at Kalaye and Farayand was due to components originated from the State in question."
- The Agency has concluded that Iran understated the amount of plutonium that it produced, although the amounts produced were in the milligram range. In addition, this plutonium was found to be more recently produced than the 12- to 16-year range specified by Iran.
- While the Agency has been able to verify Iran's voluntary suspension of enrichment activities, it has found Iran's continued generation of uranium hexafluoride (UF6) at the Uranium Conversion Facility to be, "at variance with the Agency's previous understanding as to the scope of Iran's decision regarding suspension."

On 18 June, the IAEA Board of Governors issued a resolution that essentially reiterated the concerns of previous resolutions. Although the resolution welcomed Iran's submission of its Articles 2 and 3 declarations under the Additional Protocol, it deplored the fact that Iran's cooperation with the Agency had not been "as full, timely, and proactive as it should have been," particularly noting the postponement of Agency visits originally scheduled in March until mid-April, thereby delaying the process of environmental sampling and analysis. The resolution also called on Iran to:

- Resolve all outstanding questions, in particular the issue of LEU and HEU contamination found in various locations, including a cluster of 36-percent-HEU particles, and the nature and scope of Iran's P-2 centrifuge program;
- Ensure that the implementation of its voluntary suspension of enrichment-related and reprocessing activities is consistent with the Agency's understanding of the scope of such suspension, in particular refraining from the production of UF6 and centrifuge components and allowing the Agency to verify this suspension; and
- Voluntarily reconsider both its decisions to begin production testing at the Uranium Conversion Facility and to begin construction of a heavy water research reactor as confidence-building measures.

The resolution also urges Iran to ratify its Additional Protocol.

On 1 September, IAEA Director General ElBaradei issued a report entitled "Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran" (GOV/2004/60), in fulfillment of the request made by the Board in June 2004. Even though the report welcomed the new information provided by Iran, it pointed mostly to the remaining inconsistencies. The following outstanding issues are identified in the report:

- The accuracy of the Iranian statements regarding its P-2 centrifuge enrichment program and its chronology continues to be in question. What remain unanswered are questions regarding the scope of Iran's efforts to import, manufacture, and use centrifuges of both the P-1 and P-2 design. The alleged absence of P-2 centrifuge related activities in Iran between 1995 and 2002 and the P-2 centrifuge procurement-related activities are also subject to further investigation. Given concerns over clandestine supply networks, ongoing IAEA investigations should shed light on the origin of both Iran's P-1 and P-2 centrifuge enrichment program.
- According to Iran, the low-enriched uranium (LEU) and highly enriched uranium (HEU) particles found on different locations of the Iranian territory derive from imported P-1 centrifuge components. The report concluded that the source and reasons of HEU and LEU contamination detected in various locations in Iran are still not clear. The information explaining each particular case may look plausible; however the different pieces of information do not fit together.
- Regarding the Iranian atomic vapor laser isotope separation (AVLIS) program, the levels of enrich-

- ment declared by Iran are consistent with the IAEA determinations. The IAEA has pointed out that the AVLIS facility at Lashkar Ab'ad could have been capable of HEU production (albeit gram quantities only).
- Iran finally agreed with the Agency's estimate regarding the amounts of plutonium that have been produced by irradiation. However, Iran claims an age of 12 to 16 years, while the IAEA is pursing the possibility that it was irradiated more recently.
- Although Iran has provided some new information on hot cells, the IAEA is still trying to obtain a clear picture of their plans in this regard.
- Iran has not yet ratified the Additional Protocol. Its initial voluntary declarations are still being reviewed by the Agency, along with information revealed in the most recent meetings between the IAEA and Iran.
- Following questions that arose during the June board meeting concerning a potential concealment effort of alleged nuclear-related activities at the Lavisan-Shian site in Tehran, Iran granted Agency experts access to that site. The inspectors were allowed to examine the site, and the Agency continues to analyze data collected during the visit.
- Discussions on open source information relating to dual-use equipment and materials, which could have both military and civilian applications, have been initiated.
- Neither Iran's safeguards agreements nor its Additional Protocol obligations require the suspension of enrichment activities. Such activities are permitted under these agreements, provided that they are declared to the Agency and that they are within limits of a non-military nuclear program. The report points out that the Agency has been able to verify Iran's suspension of enrichment-related activities at specific sites, and that as of September 1, 2004, the Agency has not detected any activities at those locations.

On 18 September, the IAEA Board of Governors adopted resolution GOV/2004/79 on the Implementation of the NPT Safeguards Agreement on Iran. The resolution does not establish a deadline, but it requests the IAEA Director General to submit (in advance of the 25 November Board's meeting):

- A report on Iran's implementation of the resolution;
- A report on Iran's response to the requests made by the Board in previous resolutions, especially re-

quests relating to full suspension of all enrichmentrelated and reprocessing activities and:

 A recapitulation of the Agency's findings on the Iranian nuclear programme since September 2002, as well as a full account of past and present Iranian cooperation with the Agency, including the timing of declarations and a record of the development of all aspects of the programme, as well as a detailed analysis of the implications of those findings in relation to Iran's implementation of its Safeguards Agreement.

The Board also stated its deep regret that the implementation of Iranian voluntary decisions to suspend enrichment-related and reprocessing activities, notified to the Agency on 29 December 2003 and 24 February 2004, fell significantly short of the Agency's understanding of the scope of those commitments and also that Iran has since reversed some of those decisions

In the resolution, the Board also stated that at its November meeting, a decision will be taken on whether or not further steps are appropriate in relation to:

- Iran's obligations under its NPT safeguards agreements; and
- The requests made of Iran, as confidence-building measures, by the Board in this and previous resolutions.

On 21 September, the Iranian government announced the resumption of their enrichment program, which had voluntarily suspended as a confidence-building measure.

After intense negotiations between the government of the Islamic Republic of Iran and the EU3, an agreement was reached regarding Iran's enrichment activities on November 14.

As a confidence-building measure and not as a legal obligation, Iran agreed to suspend all enrichment-related and reprocessing activities, specifically the manufacture and import of gas centrifuges and their components; the assembly, installation, testing, or operation of gas centrifuges; work to undertake any plutonium separation or to construct or operate any plutonium separation installation; and all tests or production at any uranium conversion installation. In return, the E3/EU will support the IAEA Director General, inviting Iran to join the Expert Group of Multilateral Approaches to the Nuclear Fuel Cycle. The agreement also stated that once suspension has been verified, the negotiations with the EU on a

Trade and Cooperation Agreement will resume. The E3/EU will actively support the opening of Iranian accession negotiations at the World Trade Organization (WTO).

On November 15, in the report by the Director General to the Board, the Agency stated: "All the declared material in Iran has been accounted for, and therefore such material is not diverted to prohibited activities. The Agency is, however, not yet in a position to conclude that there is no undeclared nuclear materials or activities in Iran"

On November 22, the IAEA Director General stated that the IAEA was verifying that Iran had stopped all the enrichment and related activities that it was committed to in the agreement. He announced that the Agency would be able to confirm the information by November 25.

However, the Board, in its resolution of November 29, noted its concern with Iran's continuing to include, in its enrichment activities, the production of UF6 up to November 22, in spite of a request by the Board in September to suspend all enrichment activities. Additionally, it recognized the voluntary status of Iran's acceptance of its AP and its non-legally binding agreement to suspend enrichment as part of a confidence-building gesture. The Board also recognized States' rights to pursue civilian nuclear programs under Treaty obligations.

2003: Concerns over Iran's nuclear program increased in February 2003 when Iranian authorities revealed a new plan to develop a nuclear energy program using entirely domestic resources. The United States in particular raised concerns that these facilities might contribute to Iran's development of a complete nuclear fuel cycle, which would enable Iran to build nuclear weapons without importing nuclear material. These concerns particularly relate to Iran's compliance with its safeguards undertakings; concerns regarding the undeclared imported nuclear material (UF6, UF4, and UO2); the processing and use of this material without notifying the IAEA at a uranium enrichment facility at Natanz; and the development of a (still not operating) uranium enrichment plant. In addition, questions have been raised regarding the on-going construction of a heavy water production plant and plans for constructing a 40megawatt (th) heavy water research reactor at Arak. Iran informed the IAEA in May 2003 about its intentions to build this heavy water reactor for research, training, and development purposes. Although heavy water production plants are not covered by comprehensive Safeguard Agreements, concerns exist that the heavy water reactor (for which construction was

planned to begin in 2004) could potentially yield weapons-grade plutonium.

Following these allegations, IAEA Director General ElBaradei and other senior IAEA officials visited the pilot-scale hexafluoride gas centrifuge enrichment plant under construction at Natanz on 21 February 2003, and discovered that the centrifuges they were shown were at least twice as powerful as claimed by Iran in its comprehensive safeguards declaration. This discrepancy was narrowed down to a factor of two following an additional visit by IAEA officials to the Natanz facility on 25 February 2003. As a result of these visits, the Agency prepared a report to the Board of Governors indicating a number of failures by Iran to report the material, facilities, and activities in question in a timely manner as it is obliged to do pursuant to its Safeguards Agreement. In this regard, the report stated that Iran:

- failed to declare the import of natural uranium in 1991, and its subsequent transfer for further processing (referring to the import of 3,960 pounds of uranium imported from China in 1991);
- failed to declare the activities involving the subsequent processing and use of the imported natural uranium, including the production and loss of nuclear material, where appropriate, and the production and transfer of waste resulting therefrom. Iran has acknowledged the production of uranium metal (that bears little relationship to an energy program which is what the Iranian government asserts to be its only purpose), uranyl nitrate, ammonium uranyl carbonate, UO2 pellets, and uranium wastes; and
- failed to declare the facilities where such material (including the waste) was received, stored, and processed.

The IAEA report also stated that while these failures are being rectified by Iran, the process of verifying the correctness and completeness of the Iranian declarations (in terms of its Safeguards Agreement) is still ongoing. Iran was requested to cooperate with the Agency to address a series of "open questions," including:

- The completion of a more thorough expert analysis of the research and development carried out by Iran in the establishment of its enrichment capabilities.
- Further follow-up on information regarding allegations about undeclared enrichment of nuclear material, including, in particular, at the Kalaye Electric Company.

- Further enquiries about the role of uranium metal in Iran's nuclear fuel cycle.
- Further enquiries about Iran's program related to the use of heavy water, including heavy water production and heavy water reactor design and construction at Arak.

On 6 May, Iranian Vice-President and head of Iran's Atomic Energy Organization H.E. Reza Aghazadeh noted Iran's intention to accept the Additional Protocol. He said that his "country has no difficulty accepting this protocol, as a matter of fact, it is approaching it positively." He added, however, that Iran "doesn't intend to ratify and enforce the provisions of this protocol without any condition" referring to restrictions on the supply of nuclear-related technologies and materials imposed by the United States, the United Kingdom, and other members of the Nuclear Suppliers Group (NSG). The Iranian representative at the IAEA Board of Governor's meeting on 18 June 2003 reiterated Iran's intention to conclude the Additional Protocol when he said that Iran "would like to state over again [its] positive consideration of the Additional Protocol....The positive outcome of this session will be conducive towards the settlement of this issue."

On 18 June, the IAEA Board of Governors considered the Agency report. Despite some pressure to do so, the Board did not declare Iran in violation of its obligations under the NPT and its IAEA Safeguards Agreement. It also did not adopt a resolution on Iran. Instead, the Chairperson of the Board, Kuwaiti Ambassador Nabeela Al-Mulla, referred to the findings of the IAEA report in her <a href="summary of the meeting">summary of the meeting</a>. The Chairperson stated that the Board:

- noted Iranian actions taken thus far to correct these failures, and urged Iran to promptly rectify all safeguards problems identified in the report and resolve questions that remain open;
- welcomed Iran's reaffirmed commitment to full transparency and expected Iran to grant the Agency all access deemed necessary by the Agency in order to create the necessary confidence in the international community;
- encouraged Iran, pending the resolution of related outstanding issues, not to introduce nuclear material at the pilot enrichment plant, as a confidencebuilding measure;
- called on Iran to co-operate fully with the Agency in its on-going work and in this regard, took note of the Director General's 16 June Introductory Statement which called on Iran to permit the Agency to take environmental samples at the par-

ticular location allegedly involved in enrichment activities:

 welcomed Iran's readiness to look positively at signing and ratifying an Additional Protocol, and urged Iran to promptly and unconditionally conclude and implement an Additional Protocol to its Safeguards Agreement, in order to enhance the Agency's ability to provide credible assurances regarding the peaceful nature of Iran's nuclear activities, particularly the absence of undeclared material and activities.

Following the Board's consideration of the Iranian report, Director General ElBaradei in his <u>concluding statement</u> remarked: "there is a need to encourage Iran to cooperate fully and demonstrate full transparency" to resolve the outstanding questions identified in the IAEA report as soon as possible before the next Board meeting in September 2003, and that, if deemed necessary, the Board could meet at a special session to consider further options.

Further discussions on the outstanding questions regarding Iran's nuclear program and Iran's possible conclusion of an Additional Protocol took place throughout July and August 2003, with visits to Iran by the Director General and IAEA technical and legal experts. Environmental samples taken from the Natanz facility that indicated the presence of highly enriched uranium particles were chief among the outstanding issues requiring clarification. In addition, the IAEA requested permission to take environmental samples at the Kalaye Electric Company in Tehran and to visit two other locations (Lashkar Ab'ad and Ramandeh) where nuclear-related activities were alleged to have occurred. Both of these requests were granted in mid-August. At the same time, Iran also expressed to the IAEA its readiness to begin negotiations on the Additional Protocol.

In preparation for the September Board of Governors meeting, the Director General's second <u>report</u> was issued on the implementation of Iran's NPT Safeguards Agreement. The report provided an update on the status of the issues raised in the previous report, and included new questions that had arisen over the course of the more recent discussions. In particular, the report noted that:

- Having acknowledged in August that uranium conversion experiments had taken place in the early 1990s, Iran is in the process of gathering and providing further information. The IAEA is continuing its efforts to audit and verify the import and use of the nuclear material.
- The Agency is continuing discussions on the presence of depleted uranium detected through

- environmental samples, and is awaiting results of samples taken from other nuclear facilities.
- The IAEA is evaluating new information received in August regarding the chronology and details of Iran's centrifuge enrichment program, and is awaiting environmental samples taken from the Kalaye Electric Company workshop.
- In working with Iran to identify the origin of highly enriched uranium particles detected at the Natanz pilot enrichment plant, the IAEA will conduct discussions with relevant Iranian personnel and will visit relevant locations. In addition, the Agency has requested assistance from Member States that have knowledge of any external nuclear-related assistance provided to Iran.
- The Agency is evaluating design information on Iran's heavy water reactor.

The report concluded that although Iran has demonstrated an increased degree of cooperation with the Agency, including its decision to begin negotiations on the conclusion of an Additional Protocol, "it should be noted that information and access were at times slow in coming and incremental and that...some of the information was in contrast to that previously provided by Iran. In addition, there remain a number of important outstanding issues, particularly with regard to Iran's enrichment program, that require urgent resolution. Continued and accelerated co-operation and full transparency on the part of Iran are essential for the Agency to be in a position to provide at an early date the assurances required by Member States."

The second report was considered during the Board of Governor's September 2003 meeting, with Board members debating several proposals regarding the most effective way to proceed. Two draft resolutions (one by France, Germany, and the United Kingdom and another by South Africa) were submitted on the first day of the Board meeting, but the resolution that was ultimately adopted on 12 September was based on a later draft submitted by Australia, Canada, and Japan (GOV/2003/69). The resolution urged Iran to provide accelerated cooperation and full transparency to the IAEA, and to ensure that no further reporting failures occurred. The resolution further expressed concern with regard to:

- the Director General's statement on the nature of Iran's cooperation and contrasting information;
- the finding of highly enriched uranium at the Natanz facility;
- the considerable modifications that had been made at the Kalaye Electric Company prior to Agency inspections;

- the discrepancies in Iran's statements to the IAEA and the increasing number of outstanding issues;
   and
- the introduction of nuclear material into the pilot centrifuge enrichment cascade at Natanz, despite the Board's June 2003 encouragement to refrain from doing so as a confidence-building measure.

The resolution called on Iran to suspend all further uranium enrichment-related activities and any reprocessing activities as a confidence-building measure, pending assurances by the Director General and satisfactory application of the provisions of the Additional Protocol. It also designated a 31 October 2003 deadline for Iran to provide full cooperation and to take any actions necessary to remedy all failures identified by the Agency, including:

- providing a full declaration of all imported material and components relevant to the enrichment program, and collaborating with the Agency in identifying the source, date of receipt, storage locations, and use of those imports;
- granting unrestricted access, including environmental sampling, to any locations deemed necessary by the Agency for verification purposes; and
- resolving outstanding questions, particularly on the scope of Iran's enrichment and conversion activities.

Finally, the resolution requested the cooperation of third countries in clarifying outstanding questions and urged Iran to promptly and unconditionally sign, ratify, and fully implement the Additional Protocol. The resolution concluded by requesting the Director General to continue his efforts to resolve the outstanding issues, and to submit a report in November 2003 on the implementation of the resolution, "enabling the Board to draw definitive conclusions."

Although adopted without a vote, the resolution did not enjoy total consensus. Only 20 of the 35 members had indicated that they would vote in favor had the resolution been put to a vote. The Non-Aligned Movement issued a <u>statement</u> expressing its reservations with regard to the final resolution, and Iran left the meeting in protest before the official adoption took place. Iran denounced the resolution again in its opening <u>statement</u> to the IAEA General Conference, but reiterated its commitment to the NPT and to the strengthened safeguards regime.

Over the next two months, Agency inspectors continued to conduct safeguards inspections, talk to relevant nuclear personnel, and to carry out other verification activities. The results of the environmental samples taken at Natanz and at the Kalaye Electric

Company, both of which had yielded traces of both high and low enriched uranium particles, were discussed with Iranian representatives. During this period, Iran demonstrated on several occasions an increased level of transparency and cooperation with the Agency. On 9 October, a letter was sent to the Agency from Iran's Atomic Energy Organization, providing information on previously undeclared research activities carried out on uranium conversion processes. Iran expressed to the Director General on 18 October its readiness to conclude the Additional Protocol and to accelerate its cooperation, and on 21 October, issued with the Foreign Ministers of Britain, France, and Germany an agreed statement in which Iran agreed to settle all outstanding issues with the IAEA. In the agreement, Iran also announced its decision to sign and commence the ratification process for the Additional Protocol, and to voluntarily suspend all uranium enrichment and reprocessing activities as defined by the IAEA. Eight days before the 31 October deadline, Iran provided the Agency with a declaration of its past and current nuclear program. On 10 November, the Agency received Iran's official notification of its acceptance of the draft Additional Protocol text and its willingness to abide by the provisions of the protocol pending its entry into force. Iran also informed the Agency that the actual suspension of its enrichment-related and reprocessing activities went into effect from 10 November.

Taking these events into consideration, the Director General issued his third report on 10 November on the implementation of Iran's Safeguards Agreement. The 30-page report acknowledged Iran's increased cooperation, but also contained details on a number of reporting and other failures by Iran to fulfill its obligations under its Safeguards Agreement. It referenced at least nine instances of undeclared foreign assistance, including by entities from at least four countries that provided components, material, and information used in Iran's laser enrichment program.

Notable reporting failures included:

- Undeclared reprocessing experiments resulting in the separation of gram quantities of plutonium;
- Undeclared laboratory-scale uranium conversion experiments using imported nuclear material some of which, when found to be missing, was intentionally misreported to the Agency as a process loss; and
- An 18-year effort to develop a uranium centrifuge enrichment program and a 12-year effort on the more complex laser enrichment program. These two programs involved undeclared production of small amounts of low enriched uranium, and not only failure "to report a large number of conver-

sion, fabrication and irradiation activities involving nuclear material," but also intentional efforts to conceal these failures.

In addition, the report contained further details on Iran's heavy water reactor program, including on the planned 40-megawatt (th) heavy water reactor and on the output capacity of its heavy water production plant currently under construction. With regard to Iranian transparency, the report noted, "Iran's policy of concealment continued until [October], with cooperation being limited and reactive, and information being slow in coming, changing and contradictory."

The report stated, "Iran's nuclear programme, as the Agency currently understands it, consists of a practically complete front end of a nuclear fuel cycle, including uranium mining and milling, conversion, enrichment, fuel fabrication, heavy water production, a light water reactor, a heavy water research reactor and associated research and development facilities." It further noted, "While most of the breaches identified to date have involved limited quantities of nuclear material, they have dealt with the most sensitive aspects of the nuclear fuel cycle, including enrichment and reprocessing." It acknowledged the numerous reporting and other failures by Iran to meet its obligations under its Safeguards Agreement, but also noted that recent actions, such as provision of inventory change reports and facility design information, have been taken by Iran in addressing and correcting these failures. The report concluded, "To date, there is no evidence that the previously undeclared nuclear material and activities referred to above were related to a nuclear weapons programme. However, given Iran's past pattern of concealment, it will take some time before the Agency is able to conclude that Iran's nuclear programme is exclusively for peaceful purposes." In this regard, the report noted the necessity of Iranian implementation of the Additional Protocol and of full cooperation from relevant third countries.

The report was considered at the mid-November Board of Governors meeting. Although the Board meeting was scheduled to conclude on November 18, negotiations regarding the next appropriate step in addressing Iran's nuclear program delayed adoption of a resolution until the following week. The United States strongly opposed what it viewed as a weakly worded draft resolution submitted by Britain, France and Germany, and pushed for referral of the Iranian case to the UN Security Council. Ultimately, however, a resolution was adopted on 26 November that:

 Acknowledged Iran's recently increased cooperation, but strongly deplored its past failures

- and breaches of its obligations to comply with the provisions of its Safeguards Agreement;
- Urged Iran to swiftly sign and ratify its Additional Protocol (which was approved by the Board on 21 November) and to act in accordance with its provisions pending ratification;
- Requested Iran to continue to suspend all enrichment-related and reprocessing activities in a "complete and verifiable manner"; and
- Reiterated the necessity of urgent, full and transparent co-operation of all relevant third countries.

The resolution also stated that should any "further serious failures come to light," it would meet immediately to consider "in the light of the circumstances and of advice from the Director General, all options at its disposal, in accordance with the IAEA Statute and Iran's Safeguards Agreement." It concluded by requesting the Director General to submit another report before the March 2004 Board of Governors meeting.

Remarking on the resolution's adoption, the Director General stated, "This is a good day for peace, multilateralism, and non-proliferation," but also noted that much verification work remains to be done.

In continuance with this verification work, the Agency carried out ad hoc inspections at the Tehran Nuclear Research Centre (TNRC) and the Natanz facility, conducted design information verification at TNRC, Natanz, and the Esfahan Nuclear Technology Centre (ENTC), and obtained complimentary access at ENTC and Karaj between the 8<sup>th</sup> and 16<sup>th</sup> of December.

On 18 December, Iran signed the Protocol Additional to its Safeguards Agreement. Iran also specified the scope of suspension of its enrichment and reprocessing activities in a 29 December Note Verbale. These activities would be suspended immediately, and included:

- all activities at the Natanz enrichment facility;
- the production of all feed material for enrichment ant the importation of enrichment-related items;
- the operation and/or testing of any centrifuges, either with or without nuclear material, at the Pilot Fuel Enrichment Plant (PFEP)at Natanz;
- further introduction of nuclear material in any centrifuges; and
- the installation of new centrifuges at the PFEP and the Fuel Enrichment Plant (FEP) at Natanz.

In addition, Iran agreed to withdraw nuclear material from any centrifuge enrichment facility if and to the extent practicable.

#### LIBYA:

Libya signed the NPT on 18 July 1968 and ratified it on 26 May 1975. Pursuant to this treaty, Libya concluded a comprehensive safeguards agreement (INFCIRC/282) with the IAEA on 8 July 1980. On 11 April 1996, it signed the African Nuclear-Weapon-Free-Zone Treaty (Treaty of Pelindaba) and subsequently deposited its instrument of ratification with the African Union on 11 May 2005.

Libya's research reactor and other nuclear facilities were mainly supplied by the Soviet Union during the 1970s. Other attempts to acquire nuclear-related technology were made with different levels of success in the following decades. In 1970, Libya's efforts to buy nuclear weapons directly from China failed. Libya relied on foreign technology to develop a nuclear capability rather than developing its own expertise. Through renewed contacts with Russia, Libya tried in the last decade to revive its civilian nuclear program. Although its peaceful nuclear program was placed under IAEA safeguards in 1980, it is now evident that Libya was in the process of developing a parallel nuclear weapons program in breach of the NPT. In December 2003, Libya announced its intention to abandon its WMD programs. This decision seems to have resulted from a combination of strenuous diplomatic efforts and Libya's strategic interest in regaining its full role in the international community. In late December 2003, inspections carried out by the IAEA showed that Libya had the basis for a nuclear program, but it was, according to IAEA Director General ElBaradei, at a very early stage.

**2004:** In January, in consonance with its new positive approach to nonproliferation, Libya ratified both the Comprehensive Test-Ban Treaty (CTBT) and the Chemical Weapons Convention (CWC) on 6 January 2004.

According to UN inspectors, Col. Qadhafi had been buying complete sets of uranium enrichment centrifuges (apparently a few thousand) on the international black market for a secret nuclear bomb program. However, the centrifuges were still dismantled in boxes, IAEA Director General EBaradei reported on January 16, and no evidence of nuclear weapons activities was found. Some sources have confirmed that Libya acquired two different types of centrifuges. The designs for at least one of the centrifuge models were very similar to European-developed

centrifuges that Iran is suspected of acquiring from Pakistan.

On January 28, the IAEA issued a note to its Member States saving that inspectors had just completed the initial phase of their work in Libya, which included an inventory of sensitive nuclear components and materials and the application of IAEA seals. Also, the IAEA inspectors provided logistical support to the U.S. and U.K. personnel who removed these materials from the country with the agreement of Libyan authorities. Sensitive items have been removed under IAEA supervision and remain under IAEA seal and oversight. A team of IAEA inspectors, including centrifuge and weaponization experts, remained in Libya to continue their work. In the coming weeks, IAEA inspectors will be undertaking verification work on nuclear components, equipment, and materials inside Libya and on items that have been removed.

On February 18, Libya issued a letter to the Agency stating that it would conclude an Additional Protocol and that, as of 29 December 2003, it would act as though the Additional Protocol had entered into force.

On February 20, The Director General issued a report detailing Libya's nuclear activities since the early 1980s. The report recognizes Libya's cooperation in granting unrestricted access to all locations of interest to the Agency, and in providing documentation related to its undeclared nuclear activities. In particular, the report identifies a number of reporting failures that rendered Libya in non-compliance with its obligations under its Safeguards Agreement. These failures include the import of UF6 and other uranium compounds and their subsequent storage; activities involving conversion of uranium oxides, UF4, and uranium metal: the fabrication and irradiation of uranium targets; the separation of a small amount of plutonium; the provision of information for the pilot centrifuge facility; the provision of design information for the uranium conversion facility; and the provision of design information for hot cells associated with the research reactor. The report also observes that Libya's undeclared nuclear activities relied heavily on the importation of nuclear material and key equipment. The Agency is currently in the process of investigating the supply routes and sources of these materials and equipment.

On March 10, Libya signed a Protocol Additional to its Safeguards Agreement. The Board of Governors adopted a <u>resolution</u> on the implementation of NPT safeguards in Libya. The resolution essentially praises Libya's cooperation with the agency, includ-

ing its adoption of an Additional Protocol, and requests continued cooperation and the full disclosure of previously undeclared nuclear activities. It also requests that the Director General report to the Security Council on the matter of Libyan non-compliance for information purposes only. Finally, the resolution urges all third countries to cooperate with the Agency to clarify questions regarding Libya's nuclear program.

On 26 May, Libya submitted its initial declarations under its Additional Protocol and the nuclear material accountancy reports for the Tajura Nuclear Research Centre (TNRC).

On 28 May, The Director General issued a report detailing the Agency's verification of the dismantlement of Libya's nuclear program. The report recognized the "decisive" role played by Libya's procurement network for nuclear material and sensitive nuclear equipment. The list of equipment acquired through this network includes a uranium conversion plant, different types of gas centrifuges, supporting equipment for these centrifuges, tools for producing centrifuge components, and some quantities of UF6. The report also notes that Libya confirmed that it received nuclear weapon design and fabrication information from a foreign source at the end of 2001 or early 2002. While the Agency has not yet found any evidence that Libya began to incorporate this information into its own nuclear program, verification work to ensure that Libya did not construct any facilities related to nuclear weapon design will continue. Finally, the report notes that while much of Libya's past nuclear activities have been clarified by the Agency, a number of issues are still under assessment, including:

- Libya's intention to produce and/or acquire UF6, and confirmation of the origin of the UF6 received in 2000 and 2001;
- Verification of the sources of LEU and HEU contamination found on gas centrifuge equipment in Libya;
- Evaluation of Libya's activities involving gas centrifuge enrichment, including the results of environmental and nuclear material samples;
- Verification of uranium ore concentrations in Libya; and
- Assessment of Libyan nuclear weapons-related activities, "including organizational arrangements and supporting documentation."

The 30 August report by the director general to the board stated that Libya had shown good cooperation with the agency since the beginning of verification activities following its December 2003 declaration. It also stated that the Agency's assessment of Libya's declarations, in regard to its uranium conversion program, enrichment program, and other past related activities appear to be consistent with the information available to and verified by the Agency.

**2003:** Mid-March: US-British talks with Libya reportedly began and eventually led to Libya's revelation in December that it had a 15-year-old nuclear weapons program. The IAEA was not included in these negotiations.

On September 12, following both Libya's decision to accept responsibility for the 1988 bombing of a Pan Am jetliner over Lockerbie, Scotland, and the 1989 bombing of a French UTA flight over Niger and its commitment to pay \$2.7 billion to the victim's families, the UN Security Council (adopting its resolution by a vote of 13 to 0 with the United States and France abstaining) ended the 11-year-old sanctions against Libya. The sanctions, imposed between 1992 and 1994, were suspended in 1999 after Libya allowed two suspects in the Pan Am case to stand trial in Scotland.

In October, British and U.S. ships seized an illegal shipment sailing under the German flag bound for Libya with thousands of parts for uranium-enrichment equipment aboard.

On December 19, Libya announced its intention to halt its WMD program and eliminate, under full verification by the international community, any stockpiles of WMD or WMD materials.

On December 28, With Col. Qadhafi's permission, IAEA inspections in Libya began with visits to four previously unvisited nuclear sites in the Tripoli area.

On December 29, Libya committed to immediately start acting as if the Additional Protocol had already entered into force.

On December 30, After inspections of the previously secret sites in Tripoli, IAEA Director General El-Baradei told reporters that no industrial-scale facility to produce highly enriched uranium or any enriched uranium had been found. According to the IAEA, the Libyan nuclear program was at an embryonic stage. However, ElBaradei expressed concern regarding the identity of the suppliers to Libya. The fact that Libya acquired enrichment technology while under UN

sanctions showed that export controls were not working and that a black market was active.

**1996:** Libya's official news agency restated Col. Qadhafi's position that the Arab States should acquire nuclear weapons to counter Israel's nuclear hegemony in the region.

**1992** and **1993**: Security Council Resolutions 748 and 883 imposed sanctions on Libya. These sanctions consisted of an economic boycott, a general air blockade, and a prohibition against supplying any arms or other military equipment and specified equipment that can be used in the production, storage, or transport of arms and related material of all types.

**1990**: In mid-April, Col. Qadhafi called for the inclusion of a nuclear component in the development of a multifaceted deterrent force.

#### DPRK:

The DPRK joined the NPT in 1985 and its comprehensive Safeguards Agreement with the Agency entered into force in 1992. However, since 1993 the IAEA has been unable to verify Pyongyang's compliance with its Safeguards Agreement.

Between 1994 and 2002, the Agreed Framework was a tool aimed at bringing the DPRK into compliance with its safeguards obligations. However, the reports about a clandestine uranium enrichment program, the end of the "freeze" pursuant to the Agreed Framework, and the expulsion of IAEA inspectors brought this phase to an end. Responding to this, the international community initiated separate negotiations, the six-party talks between the DPRK, China, Russia, Japan, the ROK, and the United States. However, since that time the Board has continually called for the DPRK to remedy its noncompliance with its safeguards agreements and noted with concern that the DPRK has not permitted Agency verification since December of 2002; the IAEA is therefore unable to provide assurances on its nuclear material or activi-

**2005:** On 3 March, the Chairman of the Board expressed serious concern over the DPRK's recent announcements that it would suspend indefinitely and then re-engage in the six-party talks. Further, the Chairman called the DPRK's nuclear issue "a serious challenge to the international nuclear nonproliferation regime as well as to the peace and stability in Northeast Asia."

On 14 June, the director general, in a <u>statement</u> to the IAEA Board of Governors, stated that "The Agency

stands ready to work with the DPRK — and with all others — towards a solution that addresses the needs of the international community to ensure that all nuclear activities in the DPRK are exclusively for peaceful purposes, as well as addressing the security needs of the DPRK."

On 26 September, the director general, in a <u>statement</u> to the Forty-Ninth Regular Session of the IAEA General Conference, welcomed "that the DPRK has expressed its commitment "to abandon all nuclear weapons and existing nuclear programs and [to return], at an early date, to the Treaty on the Non-Proliferation of Nuclear Weapons and to IAEA safeguards." The director general called the agreement reached by the six-party talks "a significant step forward."

On 24 November, the director general <u>updated</u> the Board of Governors on implementation of safeguards in the DPRK. The director general stated that the agency has not performed any verification activities in the DPRK since December 2002 and therefore cannot provide any assurance about DPRK's nuclear activities since that time.

**2004:** On 17 March, the Director General informed the Board that his letter to the DPRK had elicited no response and that the DPRK's stated re-starting of its 5 MW reactor at Yongbyong constituted a further safeguards agreement violation. He also said "the situation in the DPRK is currently the most immediate and most serious threat to the nuclear nonproliferation regime."

On 16 August the Director General, in a report to the Board, recalled that since 1993 the Agency has not been able to implement fully its comprehensive safeguards agreement and advised that the agreement still is in force with the DPRK.

The Board resolution of 24 September noted with concern the DPRK's repeated official statements declaring its intention to build up a nuclear deterrent force and its announcement that it had reprocessed 800 spent fuel rods; it called on the State to completely and promptly dismantle any nuclear weapons program.

**2003:** On 6 January, the IAEA Board of Governors adopted resolution GOV/2003/3 calling on the DPRK to comply with the Safeguards Agreement and readmit inspectors, deploring in the strongest terms the DPRK's unilateral actions. The resolution also affirmed that unless the DPRK fully cooperates with the Agency, the DPRK will be in further noncompliance with its Safeguards Agreement. It requested the Director General to transmit the Board's resolution to the DPRK, to continue to pursue ur-

gently all efforts with the aim of the DPRK's coming into full compliance with its safeguards obligations, and to report again to the Board of Governors as a matter of urgency.

On 10 January, the DPRK announced its withdrawal from the NPT stating that its withdrawal "will come into force automatically and immediately" on the next day. It stated that it had suspended its 1994 withdrawal from the NPT on the last day of the required three-month notice period and thus did not need to give a further notice to other NPT Parties and Security Council as required under Article X.

On 12 February, the Board of Governors adopted a third resolution (GOV/2003/3) on 12 February 2003, declaring that North Korea was "in further noncompliance with its obligations under its Safeguards Agreement pursuant to the NPT" and decided to report "to the United Nations General Assembly and the Security Council, North Korea's continued noncompliance and the Agency's inability to verify nondiversion of nuclear material that is subject to safeguards."

Although no statement to this effect has been issued by the NPT State Parties, the generally held view is that North Korea's withdrawal came into effect on 10 April 2003, when its three-month notice of withdrawal expired.

During the 47<sup>th</sup> session of the General Conference, IAEA Member States adopted a <u>resolution</u> expressing concern with regard to the nuclear actions taken by North Korea. They called upon the DPRK to reconsider its actions and statements and accept and fully comply with comprehensive IAEA safeguards, and strongly encouraged diplomatic efforts to facilitate a peaceful resolution of the DPRK nuclear issue.

**2002:** No tangible progress has been made with respect to safeguards in the DPRK. The Agency continues to be unable to verify the correctness and completeness of the initial declaration of nuclear material made by the country. On 16 October, North Korea admitted that it had been conducting a clandestine nuclear weapons development program for the past several years. The Director General expressed great concern regarding the information reported by the United States and urged both countries to provide information on this report.

On 29 November, the IAEA Board of Governors adopted Resolution GOV/2002/60 on the implementation of IAEA safeguards in the DPRK at its meeting in Vienna. The Director General, Dr. Mohamed El-Baradei, in a message to the DPRK confirmed the Agency's readiness to dispatch a senior team to the

DPRK, or to receive a DPRK team in Vienna, to discuss the general question of implementation of IAEA safeguards in the DPRK.

In December, the DPRK requested that the IAEA remove seals and monitoring cameras at all of its nuclear facilities. The DPRK also announced that it would lift the freeze on its nuclear facilities maintained pursuant to the 1994 Agreed Framework and to resume operations of these facilities for power generation on 12 December, 2002. Subsequently, the DPRK cut most of the seals and impeded the functioning of surveillance equipment installed at both the fuel rod fabrication plant and the reprocessing facility. Furthermore, in response to the DPRK's request, IAEA inspectors left the country at the end of December 2002.

**2001:** As of December 2001, the Agency was unable to verify the correctness and completeness of the initial report of the nuclear material made by the DPRK, and, therefore, unable to conclude that there has been no diversion of nuclear material. The IAEA considers Pyongyang to be in non-compliance with its Safeguards Agreement that remains binding and in force.

**2000:** In his Statement to the 2000 NPT Review Conference in New York on 24 April, 2000, the Director General noted that with regard to the DPRK, there was regrettably little to report since the 1995 NPT Conference and that the DPRK remained in noncompliance with its Safeguards Agreement

The DPRK continued to accept IAEA activities solely in the context of the "Agreed Framework," which it concluded in October 1994 with the United States. As requested by the Security Council, the Agency was monitoring a "freeze" of the DPRK's graphite-moderated reactors and related facilities under that agreement.

In November 2000, the IAEA Secretary-General voiced hope that with the recent positive developments on the Korean Peninsula, the DPRK would soon be ready to commence active co-operation with the Agency so that it can verify that all nuclear material in the country, subject to safeguards, had been declared. The Agency was permitted by the DPRK to identify some of the documents that needed to be preserved for verification.

1999: Technical rounds held in March and December 1999 yielded little to no progress. At the June 1999 meeting of the Board of Governors, the Director General noted again the Secretariat's continued inability to verify the DPRK's initial inventory declaration, and that the DPRK remained in noncompliance with its Safeguards Agreement. He further said that there remained a fundamental differ-

ence of view between the Agency and the DPRK regarding the status of the Safeguards Agreement. The Agency viewed the Safeguards Agreement as binding and in force, while the DPRK did not accept all the measures required under the Safeguards Agreement. In practice, the DPRK accepted ad hoc and routine inspections at facilities not subject to the freeze mandated by the Agreed Framework without major difficulties. The DPRK also continued to link progress with the IAEA to the implementation of the Agreed Framework.

1998: As there was also no progress made during the ninth round of technical discussions in February 1998, the Director General emphasized to the Board of Governors in June that the Agency continued to be unable to verify the correctness and completeness of the DPRK's initial report and could not verify that there had been no diversion of nuclear material. Furthermore, the canning operation of spent fuel rods had been suspended in April at the DPRK's request; 97 percent of the irradiated discharged rods were canned and under Agency seal by that time. Further technical rounds in June and October 1998 did not lead to any progress.

1997: At the meeting of the Board of Governors on 17 March 1997, the Director General reported that the seventh round of technical discussions, which took place on 20-24 January, 1997, in Pyongyang, also produced few results. No progress was made on the issues of the preservation of information or the reprocessing plant. The Director General informed the Board that the Agency inspectors had a continuous presence in the Yongbyon area to monitor the freeze. As of August 1997, the canning operation for the irradiated fuel rods from the 5 MWe reactor, which started in April 1996, was about 90 percent complete. The rods were placed in containers under Agency seals. In January 1997, the DPRK clarified that the nuclear graphite manufactured for use at the 5 MWe power reactor was subject to IAEA monitoring. In October 1997, at the eighth round of technical discussions, no progress was made on the outstanding issues.

1994: On 13 June 1994, the DPRK, which had been an IAEA Member State since 1974, announced its withdrawal from the Agency. The withdrawal did not affect the DPRK's obligations under its Safeguards Agreement, which in the Agency's view remained binding and in force. The DPRK asserted that it was in a special position with regard to the Safeguards Agreement and that it was no longer obliged to allow the inspectors to carry out their work under agreement.

**1993:** The IAEA Board of Governors on 1 April 1993 concluded that the DPRK was in noncompliance with its Safeguards Agreement and, in line with Article XII.C of the IAEA Statute, referred this non-compliance to the UN Security Council.

#### IRAQ:

The IAEA is in charge of applying safeguards in Iraq under a comprehensive Safeguards Agreement signed in 1973 as required by the NPT. The Agency's activities in Iraq are carried out by the Iraq Nuclear Verification Office (formerly known as the Action Team). As of December 2002, the Action Team had 24 staff members from 13 different nations.

Since 1991, the IAEA has carried out inspections in Iraq pursuant to several United Nations Security Council (UNSC) resolutions. Under Resolution 687, the IAEA's mandate in Iraq includes two tasks:

- Uncovering and dismantling Iraq's clandestine nuclear program.
- Developing and implementing an Ongoing Monitoring and Verification (OMV) Plan.

Between 1991 and 1996, the IAEA Action Team in cooperation with UNSCOM conducted 29 on-site inspections related to implementation of Resolution 687. Since 1994, it had also conducted more than 1,500 OMV inspections, which allowed the Agency to build a comprehensive picture of Iraq's past nuclear program.

With the adoption of UNSC Resolution 1409 on 14 May, 2002, the IAEA's mandate was extended. UNSC Resolution 1409 defines a new system for the sale or supply of commodities and products to Iraq, through the adoption of the Goods Review List (GRL) and associated procedures. In this regard, Iraq Nuclear Verification Office (INVO) experts evaluate each contract application, as received by the Office of the Iraq Program (oil-for-food), to determine whether it contains any nuclear or nuclear-related items referred to in Section D (nuclear) of the GRL.

The Agency's mandate in Iraq was further extended with the adoption of UNSC Resolution 1441 on 8 November 2002. The new resolution instructed Iraq to provide the IAEA and UNMOVIC with "immediate, unimpeded, unconditional, and unrestricted access to any and all" suspect sites and facilities, as well as unrestricted access in interviewing (either inside or outside of the country) any relevant Iraqi officials and other persons with possible connections to a WMD program. The IAEA and UNMOVIC were requested to resume inspections within 45 days of the resolution's adoption and to report to the Secu-

rity Council 60 days after on the implementation of the resolution.

**2005:** In September, the IAEA completed the annual Physical Inventory Verification of Iraq's declared nuclear material. The material—natural or low-enriched uranium—is consolidated at a storage facility near the Tuwaitha complex, south of Baghdad. The inspectors found no diversion of nuclear material.

**2004:** On 11 April, the DG sent a letter to the UN Security Council stating that since 17 March of 2003 the IAEA has not been in a position to implement its mandate in Iraq under UNSC Res. 687 (1991) and related resolutions, but that it remains ready, subject to Security Council guidance (and security conditions), to resume its mandated verification activities in Iraq.

During 2004, the IAEA focused its activities on conducting investigations of sensitive and contaminated items that have been exported from Iraq: analyzing additional information collected during inspections, consolidating its information assets, refining its plan for resumed verification activities, and evaluating lessons learned through past experience in Iraq.

2003: On 27 January 2003, Director General El-Baradei noted in his address to the UN Security Council meeting that "no prohibited nuclear activities had been identified during the [IAEA's] inspections." As of 7 March 2003, the IAEA had conducted a total of 218 inspections at 141 sites, including 21 that had not been inspected before. ElBaradei reported the following to the UN Security Council on 7 March 2003: "after three months of intrusive inspections, we have to date found no evidence or plausible indications of the revival of a nuclear weapons program in Iraq, making use of all the additional rights granted to us by resolutions 1441 (2002) and all additional tools that might be available to us, including reconnaissance platforms and all relevant technologies." El-Baradei stated that the IAEA had found "no indication of resumed nuclear activities...[nor was there any indication] of nuclear related prohibited activities at any inspected sites." He noted that Iraq had been "forthcoming in its cooperation, particularly with regard to the conduct of private interviews and in making available evidence that could contribute to the resolution of matters of IAEA concern." While these statements revealed that, according to the IAEA, Iraq was not developing a nuclear weapons program, the Agency was forced to withdraw its inspection team on 18 March 2003, along with all United Nations inspectors. On 20 March 2003, coalition forces led by the United States and United Kingdom initiated "Operation Iraqi Freedom" and invaded Iraq.

During the 19 March UNSC meeting, Secretary-General Kofi Annan addressed the Council expressing deep regret about the "fact that it [was] not possible [for the Council] to reach a common position" on the situation in Iraq. Several members acknowledged the hope that "implementation of the Council resolution for Iraqi disarmament could be achieved through peaceful means" and yet, the Council could not find convergence of views among its members on Iraq.

In the aftermath of the Iraq war, IAEA inspectors have been granted limited access to Iraqi nuclear facilities. On 22 April 2003, ElBaradei noted at the UN Security Council that "the IAEA continues to be the sole organization with legal powers - derived from both the Nuclear Non-Proliferation Treaty and successive Security Council Resolutions - to verify Iraq's nuclear disarmament." He advised the coalition about the need for physical protection of the location of Iraq's declared nuclear material. On 6 June 2003, the Agency re-entered the country for the first time to begin an assessment of the 23,000-acre Tuwaitha Nuclear Facility 14 miles south of Baghdad. Pentagon officials, however, noted that this was "a onetime project and that the IAEA should not expect blanket access to all nuclear sites in Iraq." ElBaradei implored the United States for access to the Tuwaitha site in May when it became clear the nuclear facility had been looted and potentially radioactive contaminated items had made their way into the surrounding community.

2002: On 30 January, 2002, the IAEA inspection team completed inspections of safeguarded nuclear material at the Tuwaitha facility in Iraq. The inspections were carried out under Iraq's Safeguard Agreement with the IAEA, which was concluded pursuant to the NPT and were limited to verifying stocks of nuclear material sealed under IAEA safeguards. The Agency's January safeguards activities were not related to the inspections in Iraq mandated by the UN Security Council; these inspections, which grant the Agency broader inspection rights, ceased in December 1998 and have not been resumed yet.

In October, representatives of Iraq, UNMOVIC, and the IAEA had focused talks in Vienna on the practical arrangements needed for facilitating resumed inspections. The Iraqi representatives announced that Iraq accepts all the inspections provided for in all the relevant Security Council resolutions.

The latest Security Council Resolution (1441), demanding resumption of inspections in Iraq, was

adopted on November 8, 2002. Iraq accepted the resolution in a letter to the UN on November 13.

Under the Security Council Resolution, on 27 November, the first inspections in the four years since the withdrawal of UNSCOM resumed in Iraq. On 7 December, one day before the deadline set in the Resolution, Iraq submitted its 12,000-page declaration of its past WMD and missile programs and facilities to the UN. IAEA Director General ElBaradei and UNMOVIC Executive Chairman Blix told the UN Security Council that Iraq's declaration falls short of a full disclosure of its weapons programs. The United States declared that Iraq is in material breach of UN Resolution 1441.

**2001:** In January 2001, the Agency inspection team carried out a physical inventory verification of the declared nuclear material remaining in Iraq under IAEA seal. As in the case of a previous inspection, its objectives were limited to verifying the presence of nuclear material and could not serve as a substitute for activities under the relevant Security Council resolutions.

In an October 2001 letter from the IAEA Director General to the President of the UN Security Council, he stated that the IAEA was not able to provide any assurance that Iraq was in compliance with its obligations under UN Security Council Resolution 687 and related resolutions. He noted that the Agency maintained readiness to resume verification and monitoring activities in Iraq pursuant to the UN Security Council resolutions; it had kept the core staff of the Agency's Action Team and was prepared to resume these activities at short notice, with the assistance and cooperation of UNMOVIC.

**2000:** In January 2000, pursuant to a comprehensive Safeguards Agreement the Agency was able to inspect the nuclear material subject to safeguards still in Iraq. This inspection was limited to a physical inventory verification of nuclear material remaining at the Tuwaitha site and was not a substitute for the required activities under the relevant Security Council resolutions. The Agency could therefore not provide any assurance that Iraq was in compliance with its obligations under those resolutions. In May 2000, the Agency completed the destruction of a filament winding machine and its spare parts that Iraq had planned to use in its clandestine uranium enrichment program. In his Statement to the 2000 NPT Review Conference in New York on 24 April 2000, the Director General, Dr. Mohamed ElBaradei, noted that with regard to Iraq, the Agency has not been in a position since December 1998 to implement its mandate under UN Security Council Resolution 687 and related resolutions.

1999: Security Council resolution 1284 (1999), which established UNMOVIC as UNSCOM's successor, reaffirmed the provisions of the relevant resolutions with regard to the role of the IAEA in addressing compliance by Iraq with Resolution 687 (1991) and other related resolutions, and requested the Director General of the IAEA to maintain this role with the assistance and cooperation of UNMOVIC. The Security Council also requested the Executive Chairman of UNMOVIC and the Director General of the IAEA to establish a unit to be responsible for the export/import mechanism established to ensure that Iraq did not reconstitute its weapons of mass destruction programs.

1998: The IAEA reported in October 1998 that no indication of prohibited equipment, material, or activities had been detected in its most recent inspections in Iraq. In August, Iraq had suspended cooperation with both UNSCOM and the IAEA, but in November, the IAEA resumed its activities in Iraq until just before the US-UK military action in mid-December 1998. On 16 December 1998, the Agency withdrew its personnel out of concern for their safety and security. Since December 1998, the Action Team has focused on preparations to resume inspections, including creating a detailed plan for resumption of activities, revising the list of items to be reported to the IAEA in the context of the OMV plan and exportimport mechanism, conducting additional analysis of available information, etc.

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