

IAEA Safeguards: Dealing preventively with non-compliance¹

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1. Introduction

The international community, too often waits for a crisis to occur before taking corrective actions instead of drawing the lessons from past events and taking appropriate preventive measures. This must be avoided in particular when it comes to nuclear proliferation.

In the wake of the first Gulf War, after it was discovered that Saddam Hussein had secretly been developing a nuclear weapons program at undeclared sites, the “Model Protocol Additional” was adopted in 1997 by the International Atomic Energy Agency (IAEA) in order to better enable the Agency to confirm the absence of undeclared nuclear materials and activities in a non-nuclear-weapon state (NNWS). The IAEA General Conference has repeatedly stressed in its resolutions the importance of the Additional Protocol ³(AP) and the need for all concerned States to supply the Agency with all information required, and has requested them “*to promptly sign additional protocols and to bring them into force as soon as possible, in conformity with their national legislation*”. (GC (48)/RES/14,§10. September 2004).

The AP is an important complement to safeguards agreements. It is however the result of five years of negotiations between Member States and contains many limitations to the Agency’s verification authority. Contrary to widespread belief, it does not provide the Agency “*access at all times to all places and data and to any person...*” a right foreseen in Article XII.A.6 of the IAEA Statute.

This paper suggests steps that the international community should take to strengthen the capacity of the IAEA to resolve cases of non-compliance with safeguards obligations in light of experiences since the 1997 adoption of the Additional Protocol. It may seem quixotic to devise better tools for clarifying the exclusively peaceful nature of a safeguards-noncompliant state when even the Additional Protocol has not been universally adopted. Yet, no objective person could deny the need to give the IAEA more conducive tools for doing its job.

Experience has demonstrated that when a State is found to have been in non-compliance with its safeguards agreements (or in breach of its obligation to comply with its safeguards agreements, which is synonymous) and does not show full transparency and cooperation for resolving questions and/or inconsistencies with regard to its nuclear program (both past and present), the Agency will temporarily need expanded verification authority. This expanded authority needs to go beyond that

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³ INFCIRC/540 (corrected)

granted under Comprehensive Safeguards Agreement (CSA)⁴ and the Model Protocol Additional. Greater authority will be necessary in these circumstances to provide **in a timely manner** an adequate level of assurance that there are no undeclared nuclear material and activities in that state, and that no previously undeclared nuclear activities have been undertaken in furtherance of any military purpose.

This is clearly reflected in the IAEA's report of September 2005 to the Board of Governors (BoG) where it is stated (GOV/2005/67 - §50):

*“In view of the fact that the Agency is not yet in a position to clarify some important outstanding issues after two and a half years of intensive inspections and investigation, Iran’s full transparency is indispensable and overdue. Given Iran’s past concealment efforts over many years, such transparency measures should extend **beyond the formal requirements of the Safeguards Agreement and Additional Protocol** and include access to individuals, documentation related to procurement, dual use equipment, certain military owned workshops and research and development locations. Without such transparency measures, the Agency’s ability [...] to verify the correctness and completeness of the statements made by Iran, will be restricted”* (emphasis added).

The problem is that these additional “transparency measures” have not been defined in any precise way and when they are requested under an IAEA Board resolution (as was the case on 4 February 2006, GOV/2006/14) they are not legally binding on the non-compliant state unless backed by the Security Council.⁵

These broader access rights must not exclude military sites, since it would be likely for the military (or related actors) to be involved in nuclear activities associated with a weapons program, should one exist⁶. At the same time, military sites may contain sensitive information that would not be relevant to the Agency’s investigation. Therefore Agency’s activities on such sites may need to be conducted under “managed access” conditions that protect such information while allowing the Agency to reach its objective.

Denial of, or unwarranted delays in access, should be reported by the Director General (DG) to the Board of Governors and, as appropriate, to the United Nations Security Council (UNSC).

To give the IAEA the verification tools it needs in cases of non-compliance⁷, the UNSC should consider the merits of adopting a **generic** resolution⁸ stating independently of any specific case that if a state is found by the IAEA to be in non-compliance with its comprehensive safeguards agreement in accordance with Article XII.C of the IAEA Statute, **upon request by the Agency**, the UNSC would automatically adopt a **specific** resolution under Chapter VII of the UN Charter requiring that state to grant to the Agency extended access rights. These rights would be used to resolve outstanding issues, and would be **terminated** as soon as the Agency’s Secretariat and the BoG have drawn the conclusion that there are no undeclared nuclear material and activities in the state and that its declarations to the IAEA are correct and complete. A draft of such a UNSC generic resolution is provided in Annex I.

⁴ INFCIRC/153 (corrected).

⁵ By affirming that “Iran shall without further delay take the steps required” by the Board in GOV/2006/14, the UNSC Resolutions 1737, 1747 and 1803 provided a legal mandate for transparency measures but did not further spell them out.

⁶ As mentioned in the Report of the Commission of Eminent Persons on the Future of the Agency: “The IAEA’s existing authorities should be interpreted to give the Agency the responsibility to inspect for indicators of nuclear weaponization activities” (GOV/2008/22, page 19).

⁷ As suggested previously in “Reinforcing Nuclear Safeguards and the role of IAEA”. P.Goldschmidt. High Level Seminar on Weapons of Mass Destruction. Brussels, 17 March 2005

⁸ Such as resolution 1373 (28 September 2001) concerning acts of international terrorism, and resolution 1540 (28 April 2004) concerning the acquisition of nuclear, chemical or biological weapons and their means of delivery by non-state actors.

2. A multi-stage process

The draft generic resolution in Annex I would add potentially useful steps to a multi-stage process that can be summarized as follows.

- **Stage One:** in accordance with Article XII.C of the IAEA Statute, Agency inspectors (in practice through the DDG-SG⁹) “*shall report any non-compliance to the Director General who shall thereupon transmit the report to the Board of Governors*”.
- **Stage Two:** upon receiving the report transmitted by the Director General “*the Board shall call upon the recipient State or States to remedy forthwith any non-compliance which it finds to have occurred*”¹⁰. The normal way for the Board to do that is by adopting a resolution. It can also be done through the summary of the views expressed by the Board in the Chairman’s Conclusions which are endorsed by the Board.
- **Stage Three:** “*The Board shall report the non-compliance to all members and the Security Council and General Assembly of the United Nations*”¹¹.

The BoG is **obliged** to report the non-compliance to the UNSC but the Statute doesn’t specify any time limit for the Board to do so. Such reporting is achieved through a Board resolution requesting the DG, on behalf of the Board, to transmit the resolution to the UNSC and the UN General Assembly.

The Board has total freedom to formulate the resolution as it deems appropriate. If remedial action has been taken, this naturally would be noted. For instance, in the case of Libya, the BoG requested the DG “*to report the matter to the Security Council for information purposes only, while commending [Libya] for the actions it has taken to date, and has agreed to take, to remedy the non-compliance*” (GOV/2004/18, 10 March 2004).

In the case of Iran, the BoG adopted a resolution on 24 September 2005 explicitly declaring Iran in non-compliance, but it was only in a February 4, 2006 resolution that the Board requested the DG to report the matter to the UNSC (i.e., some four years after the initial findings).

- **Stage Four:** after considering the report(s) transmitted by the DG, the Security Council can (a) do nothing, (b) limit its reaction to a Presidential statement, or (c) adopt a specific resolution either under Chapter VI or VII of the UN Charter.

In the case of Libya, the Security Council held a meeting on 22 April 2004 to consider the matter, and its President made a statement on behalf of the Council welcoming Libya’s decision to abandon its WMD programs, and praising its active cooperation with the IAEA. Because of Libya’s cooperation with the Agency, the Security Council never adopted a resolution on Libya, clearly demonstrating that reporting non-compliance to the BoG and thereafter to the UNSC does not necessarily entail sanctions of any kind.

⁹ Deputy Director General Head of the IAEA Department of Safeguards.

¹⁰ Article XII.C of the IAEA Statute.

¹¹ *ibid*

In the case of Iran, the Security Council examined the issue on 29 March 2006 and its President made a statement reiterating the request made in the IAEA February 2006 Board resolution. A first UNSC resolution (1696) was adopted (under Chapter VI of the UN Charter) on 31 July 2006 without any penalty for Iran. Thereafter, because of Iran's refusal to comply with IAEA and UNSC resolutions, the Security Council adopted three resolutions under Chapter VII¹² imposing some sanctions.

- **Stage Five:** Assuming that the generic UNSC resolution in Annex I has been adopted prior to the non-compliance case at hand, **upon request by the IAEA**, the Security Council would adopt a specific resolution under Chapter VII of the UN Charter temporarily increasing IAEA access rights to locations, facilities, individuals, equipment and documents in accordance with the Temporary Complementary Protocol (TCP) annexed to the resolution (cf. Annex II)
The Director General would have to report to the UNSC within 60 days (and periodically thereafter) whether the non-compliant state is fully implementing the TCP and pro-actively cooperating with the IAEA.
- **Stage Six:** if the above-mentioned report by the DG is not satisfactory, the Security Council would then adopt a second specific resolution (under Chapter VII) requiring the non-compliant state to immediately suspend all sensitive nuclear fuel cycle related activities, and requesting the DG to report within 60 days on whether the state has complied.
- **Stage Seven:** If the state does not comply with the previous two Security Council resolutions, the UNSC would automatically adopt a third resolution (under Chapter VII) requiring all states to forthwith suspend all military cooperation with the non-compliant state.

If a State has violated its NPT or safeguards undertakings and **thereafter** refuses to fully and proactively cooperate with the IAEA (through the first five steps of the process envisioned here) and to temporarily suspend sensitive nuclear fuel cycle activities as mandated by the UNSC, it represents a threat to international peace and security. It is logical and legitimate for the Security Council to agree a priori that in these circumstances all military cooperation with that State would be suspended. This should constitute a strong disincentive for that State to defy legally binding UNSC resolutions, but would in no way impact the well-being of its population.

After that it would be for the UNSC to decide on the next steps in a traditional manner.

As experience has taught us, for example, in the cases of North Korea and Iran, one of the greatest difficulties in deterring states from violating their non-proliferation undertakings or from ignoring legally binding UNSC resolutions is their hope that for geo-political or economic reasons at least one of the five veto-wielding members of the UNSC will oppose the adoption of effective sanctions.

If the generic resolution proposed in Annex I had been adopted before 2003, it is most likely that the IAEA Board of Governors would have reported Iran's non-compliance to the UNSC in November 2003 instead of February 2006 since full cooperation with the Agency and the suspension of sensitive fuel cycle activities would not have been a bargaining chip. At that time Iran had no operating UF6 conversion plant, no operating centrifuge plant at Natanz, and was apparently ready to negotiate a broad cooperation agreement with Western countries.

¹² Resolutions 1737 (23 December 2006), 1747 (24 March 2007) and 1803 (3 March 2008).

The approach suggested here would allow the IAEA safeguards system, in the specific circumstances described above, to provide the international community with more credible assurances regarding the exclusively peaceful nature of all nuclear related activities in the state in a faster, more effective and more efficient manner. This is the core requirement of Article II of the NPT, on which Article IV is conditioned. Adopting the proposed generic UNSC resolution would not, in any way, affect states in good standing with their NPT safeguards undertakings.

3. Access rights beyond CSA and AP

The remainder of this document will focus on the proposed Model Temporary Complementary Protocol (TCP). This TCP highlights some of the weaknesses of the AP that need to be corrected when a State found to be in non-compliance is not fully and proactively cooperating with the Agency or appears to be attempting to defeat the IAEA verification system. In other words when one refers to “full transparency and cooperation” with the IAEA, it should mean, as a minimum, implementing fully, continuously and without delay provisions such as those proposed in the prototype TCP offered here.

Based on IAEA safeguards implementation experience it is apparent that a narrow legal interpretation of the Agency’s authority under a CSA and AP can make it extremely difficult for the Agency, in a state found to have been in non-compliance and not fully cooperating with the Agency, to provide the international community with the expected non-proliferation assurances for that state.

In such a case, there are five main areas where the Agency needs expanded authority to reach in a timely manner the conclusion that there is no undeclared nuclear material and activities in the state and no nuclear related activities in furtherance of any nuclear weapons program. The five areas to be addressed are:

- 1) Access to information (including clarifications and amplifications in order to resolve questions and inconsistencies).
- 2) Access to persons
- 3) Access to locations
- 4) Access to data and documents
- 5) Other types of restrictions, e.g. on freedom of movement, use of Agency equipment (including recording meetings), limitations on the number of designated inspectors, visas etc...

It should be noted that the IAEA Statute governs the basic legal authority and responsibilities of the Agency and its organs, and the Agency’s relations with Member States.

While the implementation of safeguards in the state concerned is determined by the terms of the relevant safeguards agreements, it should be emphasized that in the case of NPT safeguards agreements, the pre-eminence of the Statute is established by the NPT itself. Indeed, Article III.1 of the NPT stipulates that the safeguards agreement required by the Treaty is to be “in accordance with the Statute” of the IAEA.

The provisions of a safeguards agreement cannot supersede the Statute.

According to Article XII.A.6 of the IAEA Statute, designated IAEA inspectors “*shall have access at all times to all places and data and to any person [...] as necessary [...] to account for source and special fissionable materials supplied and fissionable products and to determine whether there is compliance with the undertaking against*

use in furtherance of any military purpose [...] and with any other conditions prescribed in the agreement between the Agency and the State or States concerned”.

However, experience suggests that the Secretariat has felt in practice that it is not in a position to implement these provisions of the Statute. It is therefore necessary to be more specific and to adopt a “Model Temporary Complementary Protocol” (TCP) which would apply only in the circumstances of non-compliance described above. The draft TCP in Annex II is based on the present Model Additional Protocol (AP)¹³ and defines the minimum temporary access rights of the Agency to information, locations and individuals in a non-nuclear-weapon state that has been found to be in violation of its NPT and/or safeguards undertakings.

The reasons for strengthening the provisions of the AP in these circumstances are substantiated by the IAEA’s practical verification difficulties encountered in Iran as reported in the most extensive set of derestricted documents provided by the IAEA.

4. Addressing the five main areas of limitations

4.1- Access to information

- As reported in August 2006 by the IAEA Secretariat (2006/Note 45)¹⁴, *“before 1991, the prevailing view... was that a State’s nuclear activities prior to entry in force of its comprehensive safeguards agreement were not relevant to the Agency’s work. This changed with Board endorsement of the Agency’s right and obligation to verify not only the non-diversion of declared nuclear material, but also the absence of undeclared material and activities”.*

The Secretariat has recommended¹⁵ that States should now provide information on their past nuclear activities. A new Article 3.i. of the TCP stipulates that information on nuclear fuel cycle-related R&D activities, activities listed in Annex I of the AP, and the import of equipment listed in Annex II of the AP must be provided to the Agency for the period starting when the state became a party to the NPT.

Among other examples, it appears from reports to the BoG that in 1998 Iran concluded a contract with a supplier in the Russian Federation related to the supply of equipment for laser enrichment to the undeclared AVLIS facility at Lashkar Ab’ad. Moreover, *“it is the opinion of Agency experts that the system at Lashkar Ab’ad, as designed and reflected in the contract, would have been capable of HEU production had the entire package of equipment been delivered”.* (GOV/200 4/60-Annex-§38).

This example shows how important it is for the Agency to be systematically informed both by the exporting and the recipient states of the transfer of all items listed in Annex II of the AP. With regard to exporting states, the DG should circulate a note (INFCIRC) to all Member States, drawing their attention to the fact that this type of information is most valuable to the Agency and that all Member States should systematically provide such information under Article VIII.A of the IAEA Statute¹⁶.

¹³All amendments brought to the Model Protocol Additional (INFCIRC/540-corrected) are indicated in track-change in a document available from the author upon request.

¹⁴This is a restricted document made available to the author. For the sake of transparency, since it contains no confidential information, it is recommended that this very informative document be derestricted.

¹⁵ IAEA 2006/Note 45, Recommendation 3.

¹⁶ Article VIII.A. states that: *“Each member should make available such information as would, in the judgment of the member, be helpful to the Agency.”*

The above example also accentuates the need for the recipient state to provide design information to the Agency as soon as the decision to construct or to authorize construction of a new facility has been taken as all States have been required to do by the BoG. Although all states having significant nuclear activities have incorporated such obligation (Code 3.1) in the General Part of the Subsidiary Arrangements to their CSA, it has been introduced in the TCP as Article 2.b.(iii) to reinforce this obligation and make sure that the non-compliant state does not unilaterally withdraw from this arrangement as Iran did on 29 March 2007 (GOV/2007/22, § 12-14).

- In its Note 45 of August 2006, the Secretariat indicates that there have been circumstances in which “*States have used exempted nuclear material to develop processes for use in undeclared nuclear activities (many in undeclared facilities), including uranium conversion, uranium enrichment, plutonium separation and fuel fabrication*”. Following the Secretariat’s Recommendation 2, Article 2.a.(vii).(c) of the TCP requires exempted nuclear material to be de-exempted if the State processes the material for nuclear activities and requires the Agency to be informed accordingly.
- As highlighted by the Secretariat, “*The Agency has no routine mechanism for acquiring information about the location, use and/or status of other sensitive equipment and components which may be **manufactured in the State or removed by the State from decommissioned installations**. The Agency is therefore not in a position to provide assurances that such equipment and components are not used in undeclared nuclear activities*”.

Under the new Article 2.a.(ix).(d) the state is required to provide information on all sensitive items listed in Annex II of the AP which have been domestically produced.

Following the Secretariat’s Recommendation 7, the state is required under a new Article 2.a.(xi) to provide the Agency with information regarding the disposition of sensitive equipment and components from decommissioned facilities. Under Article 5.a.(iv) the State has to provide the Agency access to locations where such items are stored or disposed of (Recommendation 8).

- In order for the Agency to be able to reconstruct a previously undeclared nuclear program and to fully assess its peaceful nature, it is important for the Agency to know the identity of the persons and entities who or which carried out nuclear fuel cycle-related R&D activities since the non-compliant state became a party to the NPT. Article 2.b.(i) of the AP has been amended accordingly.

Experience has demonstrated that it is important for the Agency to have **prompt** access to the information necessary for the Agency to carry out its verification and evaluation activities effectively and efficiently. However, the AP does not specify deadlines for States to respond to the Agency’s requests.

Under the new Article 3.h. the state must provide the Agency with the information requested by the Agency pursuant to Article 2.c. (amplifications or clarifications) and Article 2.d.(information and activities carried out at specific locations identified by the Agency) within 24 hours.

In addition:

- Under Article 3.b. updated information is required on a quarterly basis rather than on 15 May of each year.

- Under Article 3.g. the information provided under Article 2.a.(ix)b. on the import of equipment and non-nuclear material listed in Annex II of the AP must be updated systematically on a quarterly basis instead of being provided within 60 days of the Agency's request.

4.2- Access to persons

Neither Comprehensive Safeguards Agreements nor the Model Protocol Additional contains provisions that elaborate on the Agency's access rights to persons in the state concerned¹⁷. Although, under Article X.C. of the IAEA Statute, the Agency's inspectors do have access at all times, to any relevant person in the State as considered necessary by the Agency to determine whether the state is in compliance with its safeguards undertakings, past practice has shown that the IAEA Secretariat may have considered that it did not have the necessary legal authority to implement these access rights.

This situation has been corrected in Article 4.a.(i) of the Model TCP and by adding a new Article 5.a.(v), providing access to individuals at their usual occupational location or such other location deemed relevant by the Agency. Article 6 entitles the Agency to record such interviews.

Experience gained in Iran

It should be noted that Iran has limited the Agency's access to persons involved in Iran's past and current nuclear programs, and in particular to persons involved in its procurement activities.

For instance, as reported to the BoG on 2 September 2005 (GOV/2005/67), in connection with the Lavisian Shian site and the effort by the Physics Research Centre (PHRC) located there from 1989 to 1998 to acquire dual use material and equipment related to uranium conversion and enrichment, the Agency had not been allowed, at the time, to interview two officials involved in these procurement activities. Even today (May 2008) it has not been able to interview one of them nor could the Agency have direct access to individuals said to be associated with alleged studies concerning nuclear weaponization-related activities (GOV/2008/4, § 41 and 52; and GOV/2008/15, § 23).

"During a meeting in Iran from 13 to 18 August 2005, the Agency requested to speak with the individual who had previously been in charge of the Gchine project, as well as to the AEOI representative currently in charge of the project. The Agency was only able to meet with the current AEOI representative, who had assumed responsibility for the project in 2002. (GOV/2005/67, § 28)

"The Agency is still awaiting additional information and clarifications from Iran regarding, and interviews with the individuals involved in, efforts by the Physics Research Centre, which had been located at Lavisian-Shian, to acquire dual use materials and equipment that could be used in uranium enrichment or conversion activities". (GOV/2005/67, § 40)

More generally the Agency is not allowed to freely interview people working at nuclear facilities or other relevant locations.

It is clear that when interviews are taking place months if not years after having been requested by the Agency, and when, in addition, they are taking place in an office run by the host country (possibly through a local interpreter), in the presence of a number of officials while likely being video-recorded by the state, their value becomes very low.

¹⁷The only reference to "persons" is in Article 2.b.(ii) of the AP providing that the state should make every effort to provide the identity of the person carrying out nuclear fuel cycle-related R&D activities not involving nuclear material at locations which the Agency considers might be functionally related to the activities of a "site".

These deficiencies of the AP have been corrected in the Model TCP in Article 4.b.(i) (access within 24 hours), Article 6 (use of Agency equipment), and Article 11 (Agency's experts and interpreters) of the Model TCP.

4.3- Access to locations.

The key challenge for the Agency is to have **prompt** access to locations that have **not been declared or identified** by a state, but where the Agency believes undeclared nuclear-related activities may be taking place, e.g. at a university or a workshop located on a military site.

Article 5.c. of the AP stipulates that the state shall provide the Agency with access to any **location specified by the Agency** in order to verify the absence of undeclared nuclear material, equipment and activities.

However the only verification activity allowed at such a location is to carry out environmental sampling but no other measurements, not even visual observation. Only if the results of the sample analysis (which takes months to be done) do not resolve the question or inconsistency can the Agency (Art.6.d.) utilize at that location visual observation, radiation detection and measurement devices.

This is the reason why the Agency has agreed to **“visit”** the Parchin military site in Iran rather than requesting complementary access under the AP because a “visit” allows some visual observation.

Environmental sampling is particularly useful if nuclear material has been present at the suspected location. However, many nuclear weaponization-related R&D activities and undeclared nuclear-related activities can take place without (or before) the use of nuclear material¹⁸.

In addition, under the AP (Article 4.a. (ii)) access to undeclared locations specified by the Agency can only take place to resolve a question relating to the correctness and completeness of the information provided by the state or “to resolve an inconsistency relating to that information”. This raises the question of what could possibly constitute such “a question”.

For instance, if open source information is available, alleging that undeclared R&D or other activities related to the nuclear fuel cycle are conducted at a University or a military workshop, the Agency may wish to access such location and to interview professional staff, professors or students working at those locations. It is however likely that a state which has something to hide would dispute such access rights (even under the AP) arguing that this is not a sufficient basis to raise a question about the completeness of its declaration.¹⁹

Most importantly there is no time limit for the state to provide the access requested by the Agency, as illustrated on many occasions in Iran. As indicated above this has been corrected in Article 4.b.(i) of the Model TCP.

Experience gained in Iran

- During the IAEA General Conference in September 2002, the Director General requested to visit a large underground nuclear related facility at Natanz and a heavy water production plant at Arak. The existence of these plants had been reported in the media in August 2002.

¹⁸ N.B. The purpose of environment sampling also includes the detection of non-nuclear materials listed in Annex II of the TCP.

¹⁹ the more so if the allegation emanates from an opposition group.

The visit was originally scheduled for October 2002, but under many pretexts took place only 4 months later, at the end of February 2003. (GOV/2003/40, §4).

- During the February 2003 mission to Tehran, the DDG-SG asked to visit a workshop at the Kalaye Electric Company where, according to open source information, it was believed that enrichment activities were taking place. The request was initially declined. In March 2003 access to a limited part of the location was permitted, but access to one of the workshop buildings was refused, Iranian authorities claiming that the building was used for storage and that no keys to the building were available (GOV/2003/75 §43). Full access was allowed only in May, but the Agency was not permitted to take environmental samples until August 2003. By that time considerable modification to the premises had taken place.
- In May 2003 the Agency mentioned two sites near Hashtgerd (Lashkar Ab'ad and Ramandeh) also mentioned in open source reports. In July 2003 the Agency asked to visit these two locations but the Iranian authorities indicated they were not willing at this stage to let the Agency visit these locations. Access took place in August but the Agency was not allowed to take environmental samples until October. It turned out that the facility at Lashkar Ab'ad was a pilot plant for laser enrichment of uranium. However the equipment was dismantled in May 2003 and transferred with uranium metal to Karaj, before the Agency had access to the site.
- In connection with the Parchin military site, as indicated in the DDG-SG's statement to the BoG on 1 March 2005: *“out of four areas identified by the Agency to be of potential interest, the Agency was permitted to select one area. The Agency was requested to minimize the number of buildings to be visited in that area and selected five buildings”*.
- Open source information indicates that nuclear related R&D activities, not necessarily involving nuclear material, could be (may have been) taking place in different institutions including Universities and the Physics Research Centre (PHRC). Prompt access rights to such locations are not provided to the Agency under the AP.

Amendments

To address the limitations highlighted above, the following amendments to the AP have been incorporated in the TCP.

A new Art.2.d. has been introduced and Art.5.a.(ii) modified in order to provide the Agency information on activities carried out at locations identified by the Agency as necessary to conduct its evaluation process, and to provide the Agency access to these locations.

Article 4.a.(i) of the AP which refers to the Agency's access to locations “in order to assure the absence of undeclared nuclear material and activities” has been modified and now refers to a new Article 5.a.(iv) which includes access to any location where dismantled equipment (specified in Annex I of the AP) is stored or disposed of in line with the recommendation of the IAEA Secretariat²⁰ and to a modified Article 5.c. which does no longer limit inspection activities to environmental sampling.

²⁰ Recommendation 8 of the note by the IAEA Secretariat 2006/Note 45

Other limitations on access to locations are also corrected in the TCP in Annex II.²¹

4.4- Access to data and documents

There is no explicit reference in the CSA or the AP to the obligation of a state to submit, upon request by the Agency, the **original** documents supporting the state's declarations (possibly for forensic analysis) and copies of any relevant document nor the right for the Agency to access these documents at the location where they are normally used or stored. This situation has been corrected by adding a new Article 5.a.(vi) in the TCP.

As for access to locations and persons, there is also no time limit in the AP for providing access to documents. This has been corrected by amending Article 4.b.(i).

Experience gained in Iran

Among other examples and as reported in GOV/2005/67 on 2 September 2005:

- *“The Agency has repeatedly asked to have access to, and copies of, the original documentation related to the 1987 offer” (§15).*

This offer was made to Iran in 1987 by a foreign intermediary for centrifuge related design, technology and components. This *«one page handwritten document (without dates, names, signature or addresses) was shown to the Agency on 12 January 2005”*.

N.B. with the original (and possibly with a copy) of the handwritten document the Agency may have been able to verify the identity of the author of the document in particular if the latter had been identified by Iran.

Almost 3 years later, on 9 October 2007, the Agency was provided with a copy of the document. However, as of May 2008, the originator of the document had still not been identified.

- With regard to the procurement of enrichment related equipment *“In a letter dated 14 April 2005, the Agency asked Iran for permission to review the **original** folder containing the 1994 shipping documents and to be provided with supporting documents reflecting the content of the shipments made in the 1994 consignments” (§17, emphasis added).*

N.B.: As far as we know this has not yet been done.

4.5- Other restrictions

When accessing any location, the Agency, in addition to the activities already foreseen under the AP, must be entitled to carry out the following activities: photography, interview, voice and/or video recording, location position measurement, examination of original records and other technically feasible measures deemed appropriate by the Agency. Article 6 has been expanded accordingly.

²¹ Art.5.a.(ii) now includes access to:

- locations identified under Art.2.a.(ix), i.e. where equipment and non nuclear material listed in Annex II of the AP are located.
- locations identified under Art.2.a.(iv), i.e. locations where manufacturing activities specified in Annex I of the AP are taking place.
- locations identified under Art.2.a.(i) and Art.2.b., i.e. locations where nuclear fuel cycle-related R&D activities not involving nuclear material are carried out (e.g. Universities).

Experience gained in Iran

As reported in November 2004 (GOV/2004/83, §95), “Iran has, however, applied broad restrictions on the Agency’s use of its own equipment to take photographs and the removal of photographs from Iran to Vienna (for use in assessment and as inspection baseline documentation). While the Agency would also like to record its meetings in Iran, Iran has agreed to make copies of its own tapes for the Agency, and to keep them under Agency seal in Iran. These constraints have made it more difficult for the Agency, at its Headquarters in Vienna, to conduct subsequent analysis and accurate assessments of the results of meetings in Iran.”

- The Agency must be entitled to carry out wide-area environmental sampling at locations specified by the Agency. The restrictions contained in the second sentence of Article 9 of the AP have been removed.
- The Agency must be entitled to have selected experts joining designated inspectors during their verification activities in the field. These experts may be technical experts or interpreters. Articles 11 and 12 of the AP have been modified accordingly in the TCP.

As reported in February 2007 (GOV/2007/8, § 23) “On 17 January 2007, the Agency received from Iran a letter informing the Agency that Iran was not in a position to approve the designation of 10 inspectors proposed as replacements for inspectors who had left the Agency and objecting to the continued designation of an additional 38 inspectors previously designated for Iran. In a Note Verbale dated 23 January 2007, the Agency expressed its regret over Iran’s decision and requested Iran to reconsider it. The Agency informed Iran that its decision would lead to diminished operational flexibility and less efficient use of resources. The Agency has received no reply from Iran in this regard.”

- If the state requests the rejection of a designated safeguards inspector or of a nominated expert it will have to substantiate the request. As provided under Article 11 a (i), the Director General shall promptly inform the state whether or not its request can be accepted taking into account the effectiveness and efficiency of the Agency’s verification activities in that state. This is necessary to avoid the situation in which the inspectors most knowledgeable with that state are arbitrarily rejected by the state under review.
- Under a new Article 14 c of the Model TCP, the Agency is permitted to open a Regional Office with the permanent presence of designated inspectors and experts.
- Under Article 14 d of the Model TCP, Agency inspectors may use their own transportation means in order to circulate freely to and between any location where access is authorized under the TCP.

4.6- Entry into force and termination

Article 17 provides that the TCP shall enter into force either when it is concluded between the Agency and the state or upon adoption by the UN Security Council, under Chapter VII of the UN Charter, of a resolution instructing the non-compliant state to implement the provisions of the TCP.

The TCP shall terminate when the Board of Governors has adopted a resolution confirming that the issues having required the entry into force of the TCP, and any issues that arose as a result of its application, have been resolved.

Annex I

Draft UN Security Council Resolution

June 2008

The Security Council,

Affirming that proliferation of nuclear, [chemical and biological] weapons, as well as their means of delivery, constitutes a threat to international peace and security,

Reaffirming, in this context, the Statement of its President adopted at the Council's meeting at the level of Heads of State and Government on 31 January 1992 (S/23500), including the need for all Member States to fulfill their obligations in relation to arms control and disarmament and to prevent proliferation in all its aspects of all weapons of mass destruction,

Recalling also that the Statement underlined the need for all Member States to resolve peacefully in accordance with the Charter any problems in that context threatening or disrupting the maintenance of regional and global stability,

Affirming its resolve to take appropriate and effective actions against any threat to international peace and security caused by the proliferation of nuclear, [chemical and biological] weapons and their means of delivery, in conformity with its primary responsibilities, as provided for in the United Nations Charter,

Affirming its support for the multilateral treaties whose aim is to eliminate or prevent the proliferation of nuclear, [chemical or biological] weapons and the importance for all States parties to these treaties to implement them fully in order to promote international stability,

Affirming that prevention of proliferation of nuclear, [chemical and biological] weapons should not hamper international cooperation in materials, equipment and technology for peaceful purposes while goals of peaceful utilization should not be used as a cover for proliferation,

Recognizing further the urgent need for all States to take additional effective measures to prevent the proliferation of nuclear, [chemical or biological] weapons and their means of delivery,

Affirming its commitment to the Treaty on the Non-Proliferation of Nuclear Weapons, and recalling the right of States Party, in conformity with Article I and II of that Treaty, to develop research, production and use of nuclear energy for peaceful purpose without discrimination,

Recalling that the IAEA General Conference in its resolution GC(49)/RES/13 of 30 September 2005 noted that "the Agency's capability to detect undeclared nuclear material and activities should be increased", and stressed "the continuing need for the Agency's safeguards system to be equipped to respond to new challenges within its mandate",

Determined to facilitate an effective response to global threats in the area of nuclear proliferation,

Acting under Chapter VII of the Charter of the United Nations:

1. *Decides that* if a State is reported by the IAEA to be in non-compliance with its NPT Safeguards Agreement(s), the Security Council shall forthwith adopt a specific resolution, under Article 41 of the Charter of the United Nations:
 - a. deciding that, upon request by the IAEA, the State in non-compliance shall provide the IAEA immediate access to locations, facilities, individuals, documents and equipment as defined in the Model Temporary Complementary Protocol (TCP) attached in Annex I to this resolution and any other access right specifically requested by the IAEA. The TCP shall remain in force until such time as the IAEA has drawn the conclusion that the State declarations under its Safeguards Agreements are correct and complete and that there is no undeclared nuclear material and activities in the State;
 - b. requesting the Director General of the IAEA to report within 60 days of the adoption of the specific resolution, and thereafter on a quarterly basis, on whether the State is fully implementing the provisions of its Safeguards Agreement(s) and the TCP and is fully and pro-actively cooperating with the IAEA;
2. *Decides that* if the Director General of the IAEA is unable to report within the timeframe defined in sub-paragraph 1.b, or at any time thereafter, that the State in non-compliance is fully implementing the provision of sub-paragraph 1.a. above, the Security Council shall forthwith adopt a specific resolution under Article 41 of the Charter:
 - a. requiring the State to immediately suspend all uranium and plutonium conversion and enrichment related activities and all reprocessing related activities, including theoretical and applied research and development and suspend any other activity specifically requested by the IAEA or the Security Council until such time as the IAEA has drawn the conclusion that the State declarations under its Safeguards Agreements (including the TCP) are correct and complete and that there is no undeclared nuclear material and activities in the State;
 - b. requesting the Director General of the IAEA to report within 60 days of the adoption of this specific resolution on whether the State has fully complied with the provision of sub-paragraph 2.a.
3. *Decides that* if the reports referred to in sub-paragraphs 1.b and 2.b show that the State in non-compliance with its NPT Safeguards Agreement does not fully comply with the provision of sub-paragraphs 1.a and 2.a, the Security Council shall adopt a specific resolution under Article 41 of the UN Charter deciding that all States shall forthwith suspend the supply of any military equipment and cooperation with the non-compliant State as long as it remains in non-compliance with Security Council resolutions.

ANNEX II**MODEL TEMPORARY COMPLEMENTARY PROTOCOL
FOR THE APPLICATION OF IAEA SAFEGUARDS
IN A NON-COMPLIANT STATE****Foreword**

This document is a model complementary Protocol designed for States having been found by the Agency and reported to the Board of Governors to be in non-compliance with Safeguards Agreement(s) concluded with the Agency, in order to enable the Agency to verify in a timely manner the absence of undeclared nuclear material, equipment and activities in such State, to verify the correctness and completeness of the declarations made by the State to the Agency (including those requested under this Protocol), and to determine whether or not previously undeclared nuclear material and activities have been undertaken in furtherance of a nuclear weapons programme

As requested by the Board of Governors and/or the UN Security Council the Director General shall use this Model Temporary Complementary Protocol as the minimum standard for verification activities that are to be implemented by States found to be in non-compliance with their Safeguards Agreement(s) in accordance with Article XII.C of the IAEA Statute. The provisions of this Protocol are consistent with Article XII.A.6 of the Statute.

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NB.: This is Annex II of INFCIRC/540 corr. amended to conform to the list in Annex B of INFCIRC/254/Rev.9/Part 1 or any subsequent amendment.	

MODEL TEMPORARY COMPLEMENTARY PROTOCOL
FOR THE APPLICATION OF IAEA SAFEGUARDS
IN A NON-COMPLIANT STATE

Preamble

WHEREAS (hereinafter referred to as ".....") is a party to (an) Agreement(s) between and the International Atomic Energy Agency (hereinafter referred to as the "Agency") for the application of safeguards [full title of the Agreement(s) to be inserted] (hereinafter referred to as the "Safeguards Agreement(s)"), which entered into force on

WHEREAS, in accordance with Article XII.C of the Agency's Statute, has been found by the Agency to be in non-compliance* with its Safeguards Agreement(s) and the Board of Governors has reported the non-compliance to the UN Security Council;

AWARE OF the desire of the international community to further enhance nuclear non-proliferation by strengthening the effectiveness and improving the efficiency of the Agency's safeguards system, in particular when a state has been found to be in non-compliance with its Safeguards Agreement(s);

RECALLING that the Agency must take into account in the implementation of safeguards the need to: respect health, safety, physical protection and other security provisions in force and the rights of individuals; and take every precaution to protect commercial, technological and industrial secrets as well as other confidential information coming to its knowledge;

CONSIDERING that, in order for the Agency to verify in a timely manner the absence of undeclared nuclear material and equipment (including equipment and non-nuclear material listed in Annex II) and activities (including those specified in Annex I) in, and the correctness and completeness of declarations, the provisions of this Protocol constitute the minimum required;

CONSIDERING UN Security Council Resolution [...] making mandatory for to provide the Agency, temporarily, the verification authority defined in this Protocol;

NOW THEREFORE the following shall apply in

* « in non-compliance » and « in breach of its obligation to comply » are to be considered as synonymous expressions for the purpose of this Protocol

RELATIONSHIP BETWEEN THE PROTOCOL AND THE SAFEGUARDS AGREEMENT

Article 1

The provisions of the Safeguards Agreement shall apply to this Protocol to the extent that they are relevant to and compatible with the provisions of this Protocol. In case of conflict between the provisions of the Safeguards Agreement and those of this Protocol, the provisions of this Protocol shall apply.

PROVISION OF INFORMATION

Article 2

- a. shall provide the Agency with a declaration containing:
- (i) A general description of and information specifying the location of *nuclear fuel cycle-related research and development activities*¹ involving and not involving *nuclear material* carried out anywhere that are (or have been) funded, specifically authorized or controlled by, or carried out on behalf of,
 - (ii) Information identified by the Agency on the basis of expected gains in effectiveness or efficiency, on operational activities of safeguards relevance at *facilities* and at *locations outside facilities* where *nuclear material* is customarily used.
 - (iii) A general description of each building on each *site*, including its use and, if not apparent from that description, its contents. The description shall include a map of the *site*.
 - (iv) A description of the scale of operations for each location engaged in the activities specified in Annex I to this Protocol.
 - (v) Information specifying the location, operational status and the estimated annual production capacity of uranium mines and concentration plants and thorium concentration plants, and the current annual production of such mines and concentration plants for as a whole as well as their cumulative production. shall provide, upon request by the Agency, the current annual production of an individual mine or concentration plant.

The provision of this information does not require detailed *nuclear material* accountancy.

- (vi) Information regarding source material which has not reached the composition and purity suitable for fuel fabrication or for being isotopically enriched, as follows:
 - (a) The quantities, the chemical composition, the use or intended use of such material, whether in nuclear or non-nuclear use, for each location in at which the material is present in quantities exceeding ten metric tons of uranium and/or twenty metric tons of thorium, and for other locations with quantities of more than one metric ton, the aggregate for as a whole if the aggregate exceeds ten metric tons of uranium or twenty metric tons of thorium. The provision of this information does not require detailed

¹ Terms in italics have specialized meanings, which are defined in Article 18 below.

nuclear *material* accountancy;

- (b) The quantities, the chemical composition and the destination of each export out of, of such material for specifically non-nuclear purposes in quantities exceeding:
 - (1) Ten metric tons of uranium, or for successive exports of uranium from to the same State, each of less than ten metric tons, but exceeding a total of ten metric tons for the year;
 - (2) Twenty metric tons of thorium, or for successive exports of thorium from to the same State, each of less than twenty metric tons, but exceeding a total of twenty metric tons for the year;
- (c) The quantities, chemical composition, current location and use or intended use of each import into of such material for specifically non-nuclear purposes in quantities exceeding:
 - (1) Ten metric tons of uranium, or for successive imports of uranium into each of less than ten metric tons, but exceeding a total of ten metric tons for the year;
 - (2) Twenty metric tons of thorium, or for successive imports of thorium into each of less than twenty metric tons, but exceeding a total of twenty metric tons for the year;

it being understood that there is no requirement to provide information on such material intended for a non-nuclear use once it is in its non-nuclear end-use form.

- (vii) (a) Information regarding the quantities, uses and locations of *nuclear material* exempted from safeguards pursuant to [paragraph 37 of INFCIRC/153]²;
 - (b) Information regarding the quantities (which may be in the form of estimates) and uses at each location, of *nuclear material* exempted from safeguards pursuant to [Paragraph 36(b) of INFCIRC/153] but not yet in a non-nuclear end-use form, in quantities exceeding those set out in [paragraph 37 of INFCIRC/153] The provision of this information does not require detailed *nuclear material* accountancy;
 - (c) Information regarding the quantities, uses and locations of *nuclear material* that have previously been exempted from safeguards but on which safeguards must be re-applied pursuant to [paragraph 38 of INFCIRC/153] because it is to be processed or stored together with safeguarded *nuclear material* or used in nuclear activities.
- (viii) Information regarding the location or further processing of intermediate or high-level waste containing plutonium, *high enriched uranium* or uranium-233 on which safeguards have been terminated pursuant to [paragraph 11 of INFCIRC/153]. For the purpose of this paragraph, "further processing" does not include repackaging of the waste or its further conditioning not involving the separation of elements, for storage or disposal.

² The reference to the corresponding provision of the relevant Safeguards Agreement should be inserted where bracketed references to INFCIRC/153 are made.

- (ix) The following information regarding specified equipment and non-nuclear material listed in Annex II as well as separated Np, Am and Po-210:
 - (a) For each export out of of such equipment and material: the identity, quantity, location of intended use in the receiving State and date or, as appropriate, expected date, of export;
 - (b) For each import intoof such equipment and material: the identity of the supplier, the quantity delivered, the location and date of import, and the present location;
 - (c) For all such equipment and material imported into,shall provide to the Agency within 30 days of the entry into force of this Protocol a list of all imports including the identity of the supplier, the quantity delivered, the location and date of import, and their present location.
 - (d) For all such equipment and material that have been domestically producedshall provide to the Agency within 30 days of the entry into force of this Protocol a list with the identity of the producer, the quantities produced, the location and date of production, and their present location.
 - (x) General plans for the succeeding ten-year period relevant to the development of the nuclear fuel cycle (including planned *nuclear fuel cycle-related research and development activities*) when approved by the appropriate authorities in
 - (xi) Information regarding the disposition of equipment listed in Annex II and components from *closed-down and decommissioned facilities and locations outside facilities*.
- b. shall provide the Agency with the following information:
- (i) A general description of and information specifying the location and the identity of the persons and/or entities carrying out or having carried out *nuclear fuel cycle-related research and development activities involving and not involving nuclear material* carried out anywhere in but which are not funded, specifically authorized or controlled by, or carried out on behalf of,
 - (ii) A general description of activities and the identity of the persons and/or entities carrying out such activities, at locations identified by the Agency outside a *site* which the Agency considers might be functionally related to the activities of that *site*. The provision of this information is subject to a specific request by the Agency. It shall be provided in consultation with the Agency and in a timely fashion not exceeding 15 days from the request.
 - (iii) Design information as soon as the decision to construct or to authorize construction of a new facility has been taken;
 - (iv) A comprehensive and accurate declaration of all documents, materials, activities, dual-use equipments (listed in INFCIRC/254/Rev.7/Part2) and facilities acquired, received or produced inrelated to the design, manufacturing and weaponization of nuclear weapons and their delivery systems, including a detailed account of the type, quantity, location, origin and date of acquisition of each item.
- c. Upon request by the Agency, shall provide amplifications or clarifications of any information it has provided under this Article, in so far as relevant for the Agency to complete

its evaluation process.

- d. Upon request by the Agency, shall provide information on activities carried out at specific locations identified by the Agency as relevant to draw its conclusions or to conduct its evaluation process.

Article 3

- a. shall provide to the Agency the information identified in Article 2.a.(i), (iii), (iv), (v), (vi)(a), (vii) and (x) and Article 2.b.(i), (iii) within 60 days of the entry into force of this Protocol.
- b. shall provide to the Agency, quarterly updates of the information referred to in paragraph a. above for the period covering the previous calendar quarter. If there has been no change to the information previously provided, shall so indicate.
- c. shall provide to the Agency, by 15 May of each year, the information identified in Article 2.a.(vi)(b) and (c) for the period covering the previous calendar year.
- d. shall provide to the Agency quarterly updates of the information identified in Article 2.a.(ix). This information shall be provided within thirty days of the end of each quarter.
- e. shall provide to the Agency the information identified in Article 2.a.(viii) 180 days before further processing is carried out and, by 15 May of each year, information on changes in location for the period covering the previous calendar year.
- f. shall provide to the Agency the information identified in Article 2.a.(ii) within 5 days of the request.
- g. shall provide to the Agency the information in Article 2.a.(ix)(b) on a quarterly basis. This information shall be provided within thirty days of the end of each quarter.
- h. shall provide the Agency the information requested pursuant to Article 2.c and 2.d within 24 hours of the request.
- i. shall provide the information identified in Article 2.a.(i),(iv), (ix)(c) and 2.b.(i) for the period since became a party to the NPT.

COMPLEMENTARY ACCESS

Article 4

The following shall apply in connection with the implementation of complementary access under Article 5 of this Protocol:

- a. The Agency shall have access to:
- (i) Any location referred to in Article 5.a. (i), (ii), (iv) and in Article 5.c in order to assure the absence of undeclared *nuclear material* and activities; and to any person and document referred to in Article 5.a.(v) and (vi);
 - (ii) Any location referred to in Article 5.b. or c. to resolve a question relating to the correctness and completeness of the information provided pursuant to Article 2 or to resolve an inconsistency relating to that information;
 - (iii) Any location referred to in Article 5.a.(iii) to the extent necessary for the Agency to

confirm, for safeguards purposes, 's declaration of the decommissioned status of a *facility* or of a *location outside facilities* where *nuclear material* was customarily used.

- b. (i) Except as provided in paragraph (ii) below, shall provide the Agency access to the locations, persons and documents referred to in Article 5 within 24 hours of the advanced notice of access by the Agency;
- (ii) For access to any place, person or document on a *site* that is sought in conjunction with design information verification visits or ad hoc or routine inspections on that *site*, the period of advance notice shall, if the Agency so requests, be at least two hours but, in exceptional circumstances, it may be less than two hours.
- c. Advance notice shall be in writing and shall specify the reasons for access and the activities to be carried out during such access.
- d. In the case of a question or inconsistency, the Agency shall provide with an opportunity to clarify and facilitate the resolution of the question or inconsistency within 48 hours of the request, unless otherwise agreed with the Agency. Such an opportunity will be provided before a request for access, unless the Agency considers that delay in access would prejudice the purpose for which the access is sought. In any event, the Agency shall not draw any conclusions about the question or inconsistency until has been provided with such an opportunity.
- e. Access to any location, person or document shall only take place during regular working hours unless the Agency considers that delays on access would prejudice the purpose for which access is sought..
- f. shall have the right to have Agency inspectors accompanied during their access by representatives of, provided that the inspectors shall not thereby be delayed or otherwise impeded in the exercise of their functions.
- g. Access requested by the Agency during official holiday periods will not be delayed by more than 24 hours.
- h. Should access not be granted within the timeframe requested and the Agency considers that delay in access has prejudiced the purpose for which access was sought, the Agency's Board of Governors will be informed without delay.

Article 5

..... shall provide the Agency with access at all times to:

- a. (i) Any place on a *site*;
- (ii) Any location identified by under Article 2.a.(i), 2.a.(iv)-(ix) 2.b. or by the Agency under Article 2.d.;
- (iii) Any *decommissioned facility* or *decommissioned location outside facilities* where *nuclear material* was customarily used;
- (iv) Any location where dismantled equipment specified in Annex II of this Protocol and previously located in *closed-down* or *decommissioned facilities* and in *closed-down* or *decommissioned location outside facilities* are stored or disposed of;
- (v) Any person who by reason of his occupation deals with materials, equipment, of facilities

which are required by the IAEA Statute to be safeguarded as necessary to determine whether there is compliance with the undertakings against use in furtherance of any military purpose. Access to such person shall be, at its usual occupation location or at such other location requested by the Agency;

- (vi) Any data and original document requested by the Agency at the location where they are normally used or stored. The Agency will have the right to make copies and take photos thereof, and to temporarily remove original documents if necessary for forensic analysis.
- b. Any location identified by other than those referred to in paragraph a.(i)-(iv) above, provided that if is unable to provide such access, shall make every reasonable effort to satisfy Agency requirements, without delay, through other means.
- c. Any location specified by the Agency, other than locations referred to in paragraphs a. and b. above, in order to verify the absence of undeclared nuclear material, equipment and activities..

Article 6

When implementing Article 5, the Agency may carry out the following activities as appropriate:

Visual observation; item counting of *nuclear material*; non-destructive measurements and sampling; collection of environmental samples; utilization of radiation detection and measurement devices; examination of records relevant to the quantities, origin and disposition of the material; examination of safeguards relevant production and shipping records; photography, photocopy, video and voice recording; location positioning measurement; application of seals and other identifying and tamper indicating devices and other measures deemed necessary by the Agency which are technically feasible.

Article 7

- a. Upon request by, the Agency and shall make arrangements for managed access under this Protocol in order to prevent the dissemination of proliferation sensitive information, to meet safety or physical protection requirements, or to protect proprietary or commercially sensitive information. Such arrangements shall not delay or preclude the Agency from conducting activities necessary to provide credible assurance of the absence of undeclared *nuclear material* and activities at the location in question, including the resolution of a question relating to the correctness and completeness of the information referred to in Article 2 or of an inconsistency relating to that information.
- b. may, when providing the information referred to in Article 2, inform the Agency of the places at a *site* or location at which managed access may be applicable.
- c. Pending the entry into force of any necessary Subsidiary Arrangements, may have recourse to managed access consistent with the provisions of paragraph a. above.

Article 8

Nothing in this Protocol shall preclude from offering the Agency access to locations in addition to those referred to in Articles 5 and 9 or from requesting the Agency to conduct verification activities at a particular location. The Agency shall, without delay, make every reasonable effort to act upon such a request.

Article 9

..... shall provide the Agency with access to locations specified by the Agency to carry out *wide-area environmental sampling*, provided that if is unable to provide such access for reasons acceptable to the Agency it shall make every reasonable effort to satisfy Agency requirements within 48 hours at alternative locations

Article 10

The Agency shall inform of:

- a. The activities carried out under this Protocol, including those in respect of any questions or inconsistencies the Agency had brought to the attention of, within sixty days of the activities being carried out by the Agency.
- b. The results of activities in respect of any questions or inconsistencies the Agency had brought to the attention of, as soon as possible but in any case within thirty days of the results being established by the Agency.
- c. The conclusions it has drawn from its activities under this Protocol. The conclusions shall be provided annually.

**DESIGNATION OF AGENCY INSPECTORS
AND NOMINATION OF EXPERTS**

Article 11

- a.
 - (i) The Director General shall notify of the Board's approval of any Agency official as a safeguards inspector. Unless.....advises the Director General of its substantiated objection to the designation of such an official as an inspector for within 15 days of receipt of notification of the Board's approval, the inspector so notified to..... shall be considered designated to ;
 - (ii) The Director General shall notify of the nomination of experts (including interpreters) who may be required to accompany Agency inspectors. Unless.....advises the Director General of its substantiated objection to the nomination of such an official as an expert for within 15 days of receipt of notification , the expert so notified to..... shall be considered nominated to ;
 - (iii) The Director General, acting in response to a request by shall immediately inform whether the requested withdrawal of the designation of any official as an inspector or nomination as an expert for..... is accepted, taking into account the effectiveness and efficiency of the Agency's verification activities in
- b. A notification referred to in paragraph a. above shall be deemed to be received by seven days after the date of the transmission by registered mail of the notification by the Agency toor within 24 hours of handing it out against signature to its permanent mission in Vienna as the case may be .

VISAS

Article 12

..... shall, within 15 days of the receipt of a request therefor, provide the designated inspector or the nominated expert specified in the request with appropriate multiple entry/exit and/or transit visas, where required, to enable the inspector or expert to enter and remain on the territory of for the purpose of carrying out his/her functions. Any visas required shall be valid for at least one year and shall be automatically renewed, at least one month before their expiration date, as required to cover the duration of the inspector's designation or expert's nomination period to

SUBSIDIARY ARRANGEMENTS

Article 13

- a. Where or the Agency indicates that it is necessary to specify in Subsidiary Arrangements how measures laid down in this Protocol are to be applied, and the Agency shall agree on such Subsidiary Arrangements within fifteen days of the entry into force of this Protocol or, where the indication of the need for such Subsidiary Arrangements is made after the entry into force of this Protocol, within fifteen days of the date of such indication.
- b. Pending the entry into force of any necessary Subsidiary Arrangements, the Agency shall be entitled to apply the measures laid down in this Protocol.
- c. Subsidiary Arrangements agreed between and the Agency will be submitted to the Board of Governors for information.

**COMMUNICATIONS SYSTEMS, REGIONAL OFFICE
AND TRANSPORTATION**

Article 14

- a. shall permit and protect free communications by the Agency for official purposes between Agency inspectors in and Agency Headquarters and/or Regional Offices, including attended and unattended transmission of information generated by Agency containment and/or surveillance or measurement devices. The Agency shall have the right to make use of internationally established systems of direct communications, including satellite systems and other forms of telecommunication, not in use in At the request of or the Agency, details of the implementation of this paragraph with respect to the attended or unattended transmission of information generated by Agency containment and/or surveillance or measurement devices shall be specified in the Subsidiary Arrangements.
- b. Communication and transmission of information as provided for in paragraph a. above shall take due account of the need to protect proprietary or commercially sensitive information or design information which regards as being of particular sensitivity.
- c. shall permit the Agency to open Regional Offices and the permanent presence of designated inspectors and nominated experts.
- d. shall permit designated inspectors and nominated experts to have their own transportation means and to circulate freely to and between any location where access is authorized under this Protocol.

PROTECTION OF CONFIDENTIAL INFORMATION

Article 15

- a. The Agency shall maintain a stringent regime to ensure effective protection against disclosure of commercial, technological and industrial secrets and other confidential information coming to its knowledge, including such information coming to the Agency's knowledge in the implementation of this Protocol.
- b. The regime referred to in paragraph a. above shall include, among others, provisions relating to:
 - (i) General principles and associated measures for the handling of confidential information;
 - (ii) Conditions of staff employment relating to the protection of confidential information;
 - (iii) Procedures in cases of breaches or alleged breaches of confidentiality.
- c. The regime referred to in paragraph a. above shall be approved and periodically reviewed by the Board.

ANNEXES

Article 16

- a. The Annexes to this Protocol shall be an integral part thereof. Except for the purposes of amendment of the Annexes, the term "Protocol" as used in this instrument means the Protocol and the Annexes together.
- b. The list of activities specified in Annex I, and the list of equipment and material specified in Annex II, as applicable to, may be amended by the Board upon the advice of the Director General. Any such amendment shall take effect fifteen days after its adoption by the Board.

ENTRY INTO FORCE AND TERMINATION

Article 17

- a. This Protocol shall enter into force
 on the date on which the Agency receives from written notification thats statutory and/or constitutional requirements for entry into force have been met.

OR³

upon signature by the representatives of and the Agency.

³ The choice of alternative depends on the preference of the State concerned according to its internal legal requirements

OR

upon the adoption of a resolution by the UN Security Council under Chapter VII of the UN Charter instructing to implement the provisions of this Protocol.

- b. may, at any date before this Protocol enters into force, declare that it will apply this Protocol provisionally.
- c. The Director General shall promptly inform all Member States of the Agency of any declaration of provisional application of, and of the entry into force of, this Protocol.
- d. This Protocol shall remain in force until the IAEA Board of Governors concludes that the issues requiring the entry into force of this Protocol and any issues resulting from its implementation have been resolved, that there is no undeclared *nuclear material*; equipment (including those listed in Annex II), *facilities* and activities (including those listed in Annex I to this Protocol) in, and thatdeclarations are correct and complete.

DEFINITIONS

Article 18

For the purpose of this Protocol:

- a. *Nuclear fuel cycle-related research and development activities* means those activities which are specifically related to any process or system development aspect of any of the following:
 - conversion of *nuclear material*,
 - enrichment of *nuclear material*,
 - nuclear fuel fabrication,
 - reactors,
 - critical facilities,
 - reprocessing of nuclear fuel,
 - processing (not including repackaging or conditioning not involving the separation of elements, for storage or disposal) of intermediate or high-level waste containing plutonium, *high enriched uranium* or uranium-233,

but do not include activities related to theoretical or basic scientific research or to research and development on industrial radioisotope applications, medical, hydrological and agricultural applications, health and environmental effects and improved maintenance.

- b. *Site* means that area delimited by in the relevant design information for a *facility*, including a *closed-down facility*, and in the relevant information on a *location outside facilities* where *nuclear material* is customarily used, including a *closed-down location outside facilities* where *nuclear material* was customarily used (this is limited to locations with hot cells or where activities related to conversion, enrichment, fuel fabrication or reprocessing were carried out). It shall also include all installations, co-located with the *facility* or location, for the provision or use of essential services, including: hot cells for processing irradiated materials not containing *nuclear material*; installations for the

treatment, storage and disposal of waste; and buildings associated with specified activities identified by under Article 2.a.(iv) above.

- c. *Decommissioned facility* or *decommissioned location outside facilities* means an installation or location at which residual structures and equipment essential for its use have been removed or rendered inoperable so that it is not used to store and can no longer be used to handle, process or utilize *nuclear material*.
- d. *Closed-down facility* or *closed-down location outside facilities* means an installation or location where operations have been stopped and the *nuclear material* removed but which has not been decommissioned.
- e. *High enriched uranium* means uranium containing 20 percent or more of the isotope uranium-235.
- f. *Location-specific environmental sampling* means the collection of environmental samples (e.g., air, water, vegetation, soil, smears) at, and in the immediate vicinity of, a location specified by the Agency for the purpose of assisting the Agency to draw conclusions about the absence of undeclared *nuclear material* or nuclear activities at the specified location.
- g. *Wide-area environmental sampling* means the collection of environmental samples (e.g., air, water, vegetation, soil, smears) at a set of locations specified by the Agency for the purpose of assisting the Agency to draw conclusions about the absence of undeclared *nuclear material*, non-nuclear material and equipment listed in Annex II, or nuclear-related activities over a wide area.
- h. *Nuclear material* means any source or any special fissionable material as defined in Article XX of the Statute. The term source material shall not be interpreted as applying to ore or ore residue. Any determination by the Board under Article XX of the Statute of the Agency after the entry into force of this Protocol which adds to the materials considered to be source material or special fissionable material shall have effect under this Protocol only upon acceptance by
- i. *Facility* means:
 - (i) A reactor, a critical facility, a conversion plant, a fabrication plant, a reprocessing plant, an isotope separation plant or a separate storage installation; or
 - (ii) Any location where *nuclear material* in amounts greater than one effective kilogram is customarily used.
- j. *Location outside facilities* means any installation or location, which is not a *facility*, where *nuclear material* is customarily used or stored in amounts of one effective kilogram or less.

ANNEX I

LIST OF ACTIVITIES REFERRED TO IN ARTICLE 2.a (iv) OF THE PROTOCOL

To be added

ANNEX II

LIST OF SPECIFIED EQUIPMENT AND NON-NUCLEAR MATERIAL FOR THE REPORTING OF EXPORTS AND IMPORTS ACCORDING TO ARTICLE 2.a. (ix)

To be added