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IAEA safeguards - Reflections on the meaning of "diversion" and "non-compliance"

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Executive Summary

"Diversion" and "non-compliance" are terms of fundamental importance for International Atomic Energy Agency (IAEA) safeguards. The Nuclear Non-Proliferation Treaty (NPT) prohibits non-nuclear-weapon states from acquiring nuclear weapons and requires these states to accept IAEA safeguards to verify that nuclear energy is not diverted to nuclear weapons. Under the IAEA's Statute the Board of Governors must report safeguards non-compliance to the Security Council and the General Assembly.

To date there have been six cases of safeguards non-compliance. While this might seem a relatively low number, such cases could have very serious implications for international peace and security – as reflected in the involvement of the Security Council. Accordingly, it is surprising that accepted definitions of the terms "diversion" and "non-compliance" have yet to be established. Lack of proscriptive definitions may seem advantageous, allowing the Board flexibility to deal with complex circumstances, but lack of clarity and consistency could have adverse consequences for the credibility of the safeguards system.

As discussed in this paper, non-compliance is a material breach of a safeguards agreement. The most obvious form of non-compliance is diversion of nuclear material to nuclear weapons. Non-compliance could also take the form of refusal to co-operate in implementing the safeguards agreement. Recognising that definitively proving diversion is likely to be difficult, safeguards agreements enable the Board to make a non-compliance finding if, taking account of all relevant facts and circumstances, the Agency is unable to verify there has been no diversion.

The way the terms "diversion" and "non-compliance" are interpreted is of critical importance in a number of contexts, including the development and implementation of safeguards measures, the formulation of safeguards conclusions, and the evaluation of safeguards effectiveness. It is essential to ensure there is a common understanding of these terms in safeguards practice and documentation. It is recommended that the IAEA, in consultation with Member States, consider how to establish such common understanding.

1. Introduction

"Diversion" and "non-compliance" are terms of fundamental importance to safeguards. Diversion of nuclear energy from peaceful uses to nuclear weapons[1] is a violation of the Nuclear Non-Proliferation Treaty (NPT), with profound implications for international peace and security. The NPT sets out the key role of International Atomic Energy Agency (IAEA) safeguards in efforts to prevent such diversion. The IAEA Statute requires non-compliance with safeguards to be reported to the Security Council and the General Assembly. To date the IAEA has made such reports with respect to six states.[2] Given the significance of diversion and non-compliance, and the number

1 The proscription of nuclear weapons also applies to "other nuclear explosive devices". For convenience the reference to "other nuclear explosive devices" is not repeated in the relevant parts of this paper.

2 These states, and the year of the IAEA's non-compliance findings, are: Iraq (1991), Romania (1992), North Korea (1993), Libya (2004), Iran (2006) and Syria (2011). For a detailed discussion of the non-compliance cases see Trevor Findlay, "Proliferation Alert! The IAEA and Non-Compliance Reporting", Harvard Belfer Center, 2015, https://www.belfercenter.org/publication/proliferation-alert-iaea-and-non-compliance-reporting.

of non-compliance cases, it is surprising that accepted definitions of these terms have yet to be established. This paper discusses the issues involved and action that might be considered.

Regarding the application of safeguards pursuant to the NPT, the key documents are: the IAEA Statute; the NPT itself; and IAEA document INFCIRC/153[3], the document used as the basis for comprehensive safeguards agreements (CSAs) concluded between the IAEA and each non-nuclear-weapon state party to the NPT.[4] Given the lapse of time between the conclusion of the Statute (1956), the NPT (1968) and INFCIRC/153 (1972), there are some differences of terminology between these documents. This has led to some debate about the meaning of particular provisions, such as those dealing with non-compliance.

INFCIRC/153 was negotiated in the Safeguards Committee established by the IAEA Board of Governors (the Board) to consider the content of safeguards agreements with parties to the NPT. An important interpretative guide, drawn upon in the preparation of this paper, is the review of the negotiating history of INFCIRC/153 in the Safeguards Committee – referred to in this paper as the "the negotiating review".[5]

Because the concept of diversion is fundamental to the meaning of non-compliance, this paper begins with a discussion of diversion.

2. Diversion

"Diversion" is not a term of art, nor does it have a specialised meaning in the non-proliferation and safeguards context. In English the ordinary meaning of diversion is:

> The act of causing something or someone to turn in a different direction, or to be used for a different purpose.[6]

For non-proliferation and safeguards, diversion should be understood to mean:

> Use of nuclear material that is subject to a peaceful use commitment for a proscribed purpose, that is, a purpose prohibited by the applicable agreement – namely, in the case of the NPT and comprehensive safeguards agreements, the manufacture of nuclear weapons or other nuclear explosive devices.

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3 Formally referred to as INFCIRC/153 (Corrected), but for convenience referred to in this paper simply as INFCIRC/153.

4 For a brief overview of the development of IAEA safeguards see John Carlson, Vladimir Kuchinov and Thomas Shea, "The IAEA's Safeguards System as the Non-Proliferation Treaty's Verification Mechanism", NTI May 2020, https://www.nti.org/documents/2646/NTI_Paper_Safeguards_FINAL_5-8-20.pdf.

5 The "Review of the Negotiating History of IAEA Safeguards Document INFCIRC/153", dated 30 July 1984, prepared for the former US Arms Control and Disarmament Agency (ACDA), https://nationalsecuritytraining.pnnl.gov/fois/doclib/IAEA_153_Negotiating_History.pdf. This review was produced by US participants in the negotiations, drawing on the IAEA's Official Records (ORs) of the negotiation of INFCIRC/153 in the Safeguards Committee and supplementing them as necessary. The ORs are not available, and in any event it seems from the negotiating review that they were not always complete. Before finalisation the review was itself reviewed by participants and experts of other states who were involved in the negotiations. This negotiating review is not as well known as it should be because initially it was classified in deference to the IAEA's restrictions on Board of Governors deliberations, and therefore was not publicly available. The review was declassified in the 1990s.

6 Cambridge American Dictionary.

This is consistent with the ordinary English meaning of "use for a different purpose". It is not necessary to show that nuclear material was physically taken from a peaceful use and moved to a proscribed use. In a state that has a comprehensive safeguards agreement (a CSA state) all nuclear material should be in peaceful use (or in non-proscribed military use, in accordance with INFCIRC/153, paragraph 14 – discussed later in this paper), so any use for a proscribed purpose represents a change from that which is legally permitted.

Brief history of the term "diversion"

The IAEA Statute makes no reference to "diversion". Rather, the Statute is expressed in terms of verifying compliance, for example, compliance with the conditions of an agreement between the state and the Agency (see Article XII, paragraphs A.6 and C).

The term "diversion" was introduced in the safeguards context in 1961, in IAEA document INFCIRC/26. Paragraph 17 of INFCIRC/26 gives this definition:

> "Diversion" means the use by a recipient State of fissionable or other materials, facilities or equipment supplied by the Agency so as to further any military purpose or in violation of any other condition prescribed in the agreement between the Agency and the State concerning the use of such materials, facilities or equipment.

Here "diversion" means a change from a peaceful or agreed use to a military purpose, or to a use in violation of the relevant agreement. It should be noted that "diversion" in the context of INFCIRC/26 can apply not only to nuclear material but also to any other materials, facilities or equipment covered by the agreement.

When IAEA document INFCIRC/66 (setting out provisions for item-specific safeguards agreements[7]) appeared in 1965, it did not use the term "diversion". Rather, INFCIRC/66 is written in terms of verifying compliance with safeguards agreements (see INFCIRC/66, paragraph 46), thus reflecting the language of the Statute.

Historically, the term "diversion" next appears in the NPT, where it is central to Article III (the "safeguards article"). Article III.1 describes the purpose of the IAEA's safeguards system, applying to CSA states, as including:

> … preventing diversion of nuclear energy from peaceful uses to nuclear weapons …

Here, it is clear that "diversion" means use of "nuclear energy" – which under the NPT is to be used by CSA states only for peaceful purposes (or a non-proscribed military purpose) – for a proscribed purpose, namely, the acquisition of nuclear weapons.

Consequently, the term "diversion" appears in INFCIRC/153. The purpose of INFCIRC/153 was to give effect to the NPT's requirement for a non-nuclear-weapon state to conclude an appropriate safeguards agreement with the IAEA. The language of NPT Article III.1 is reflected in paragraph 1 and paragraph 2 of INFCIRC/153 ("Basic Undertaking" and "Application of Safeguards" respectively): safeguards are to be accepted and applied:

> … for the exclusive purpose of verifying that (nuclear material) in all peaceful nuclear activities … is not diverted to nuclear weapons …

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7 Although the term "INFCIRC/66 agreement" is commonly used, in fact INFCIRC/66 is not a model safeguards agreement but a description of the IAEA safeguards system. Each INFCIRC/66-based agreement reflects the last such agreement to enter into force and becomes the "model" for the next one.

Since INFCIRC/153 is intended to give effect to NPT Article III, the terms used in INFCIRC/153 are to be given the same meaning as in the NPT. Accordingly, as with the NPT, the sense of "diverted" in INFCIRC/153 is "use for a proscribed purpose".

INFCIRC/153 also refers to "diversion" in paragraph 28 ("Objective of Safeguards"). Because paragraph 28 appears in Part II of INFCIRC/153, which describes safeguards procedures applying primarily to nuclear material in nuclear facilities, this seems to have led to the assumption in the IAEA's 2001 Safeguards Glossary[8] that diversion in INFCIRC/153 means "undeclared removal of declared nuclear material from a safeguarded facility" (see below). While this interpretation was influenced by the Facility-Level Concept which applied when the Safeguards Glossary was written, it was too narrow:

(a) Safeguards procedures under Part II are not limited to declared nuclear material in safeguarded facilities – see for example the provisions on "ad hoc" and "special" inspections (paragraphs 71 and 73).

(b) The IAEA's actions with respect to Iraq in 1991 and North Korea in 1993 indicate a broader interpretation of diversion.

The introduction of the Additional Protocol (INFCIRC/540), and subsequently the State-Level Concept, has highlighted the wider meaning of diversion.

Peaceful uses and peaceful purposes

The NPT is expressed in terms of "peaceful uses" (Article III.1) and "peaceful purposes" (Article III, paragraphs 2 and 3, and Article IV). There is no indication that the negotiators of the NPT intended these different terms to convey any significant difference of meaning. Rather, they appear to be different ways of expressing a similar idea. The adjective "peaceful" is an indication of the purpose of the use of nuclear material.

The word "purpose" means "the reason for doing something", or "intention".[9] In the safeguards context the reference to purpose has two effects:

(a) It avoids any argument about whether the nuclear material is actually being used for a proscribed purpose at the time in question.

(b) It allows the IAEA to make a judgment about the intended use as evident from the available facts.

Purposes unknown

INFCIRC/153, paragraph 28, refers to

> … the timely detection of diversion of … nuclear material from peaceful nuclear activities to the manufacture of nuclear weapons … or for purposes unknown …

The phrase "purposes unknown" is essential because it relieves the IAEA from an unrealistically high standard of proof. It is unlikely inspectors would find a nuclear weapon in a CSA state – it is more likely the IAEA would only find indications of possible nuclear-weapons-related activities. This is an example where the Safeguards Committee negotiating INFCIRC/153 recognised the

8 IAEA Safeguards Glossary, 2001, https://www-pub.iaea.org/MTCD/publications/PDF/nvs-3-cd/PDF/NVS3_scr.pdf.

9 Cambridge American Dictionary.

need for a realistic standard of proof.[10] Safeguards objectives would not be served by a standard of proof that could be unattainable in practice (for example, irrefutable proof of diversion).

How "purposes unknown" is interpreted in practice is for the Board to determine. The usual standard of proof in international fact-finding is the balance of probabilities.[11] This means the Board cannot simply say, "we don't know the purpose and therefore it must be diversion", there must be sufficient evidence that it is reasonable to conclude diversion is more likely than not. If the state puts forward a reasonable explanation, this should be seriously investigated before the Agency can draw a negative conclusion: indeed, as will be discussed, this is a requirement of INFCIRC/153, paragraph 19.

IAEA Safeguards Glossary

Some confusion has been caused by the Safeguards Glossary. Paragraph 2.3(a) of the Safeguards Glossary describes diversion, in the case of an INFCIRC/153 safeguards agreement, as

> … the undeclared removal of declared nuclear material from a safeguarded facility …

It is important to note that paragraph 2.3 does not present this as a definition, but as "a particular case of non-compliance", in other words, it is an example or illustration.

Adding to the confusion, for some reason the Safeguards Glossary gives a different description for diversion in the case of an agreement based on INFCIRC/66, even though the term "diversion" does not appear in INFCIRC/66. In this case, the Glossary supports the meaning of diversion as a proscribed use – paragraph 2.3(b) describes diversion as:

> … the use of the nuclear material specified and placed under safeguards in such a way as to further any military purpose.

Diversion and undeclared nuclear material

With some limited exceptions, the only circumstance where a CSA state may legally have nuclear material outside safeguards procedures is where nuclear material is exempted from safeguards, or when safeguards have been terminated on nuclear material deemed practicably irrecoverable, when it is transferred to a non-nuclear activity, or when nuclear material has been withdrawn from standard safeguards procedures for use in a non-proscribed military activity (such as naval propulsion) in accordance with the procedures set out in INFCIRC/153, paragraph 14. Paragraph 14 requires the state to inform the IAEA of any intended use of nuclear material for a non-proscribed military activity and to make an arrangement with the Agency under which standard safeguards procedures will be re-applied at the end of that activity.

Diversion cannot be limited to just one situation, undeclared removal of safeguarded material, as the Safeguards Glossary seems to suggest, because the basic undertaking of a state, under NPT Article III.1, is to accept safeguards on all nuclear material. The proscription of using nuclear material for nuclear weapons applies whether or not the nuclear material is declared. To maintain otherwise would make the NPT ineffective, as a state could avoid the proscription of nuclear weapons use simply by not declaring nuclear material to the IAEA.

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10 See the negotiating review, discussion of INFCIRC/153, paragraph 19, at pp. 143-5.

11 Caroline Foster, "Burden of Proof in International Courts and Tribunals", Australian Year Book of International Law**,** vol. 29 (2010), http://www.austlii.edu.au/au/journals/AUYrBkIntLaw/2010/3.pdf.

It follows that the obligation of the state not to divert nuclear material applies to undeclared as well as declared material, and the IAEA has the right and responsibility to investigate and draw conclusions on whether there has been diversion of undeclared material.[12] This point is reinforced in INFCIRC/153, paragraph 19 (on non-compliance findings), which refers to:

> … diversion of nuclear material required to be safeguarded to nuclear weapons … (underlining added)

"Required to be safeguarded" is a reference back to the obligation to accept safeguards on all nuclear material – so the scope of the term "diversion" is not limited to nuclear material that is actually safeguarded (that is, has been declared); it applies also to undeclared nuclear material.

3. Non-compliance

There is no generally applicable definition of "non-compliance" in international law, but the term conveys a sense not just of a treaty breach, but of a material breach, that is, the violation of a provision essential to the accomplishment of the object or purpose of the treaty.[13] This sense of a material breach is reflected in the IAEA Statute, through the requirement for the Board to report non-compliance with a safeguards agreement to, inter alia, the Security Council. Clearly a breach has to be very serious, bearing on the maintenance of international peace and security, to warrant the attention of the Security Council.

Article XII.C of the IAEA Statute provides that Agency inspectors are responsible for determining whether there is compliance with the conditions of an agreement dealing with safeguards concluded between the Agency and a state. Inspectors are required to report any non-compliance to the IAEA Director General who shall transmit the report to the Board. Article XII.C further provides:

> The Board shall call upon (the state) to remedy forthwith any non-compliance which it finds to have occurred. (underlining added) The Board shall report the non-compliance to … the Security Council and the General Assembly …

The term "non-compliance" does not appear in the NPT or INFCIRC/153. INFCIRC/153 refers to non-compliance indirectly – paragraph 19 provides that if:

> … the Agency is not able to verify that there has been no diversion of nuclear material required to be safeguarded under the Agreement to nuclear weapons … it may make the reports provided for in paragraph C of Article XII of the Statute (underlining added),

that is, a report of non-compliance.

Relationship between the Statute and INFCIRC/153

The IAEA's safeguards rights and responsibilities in the Statute are expressed in general terms and require elaboration through more detailed guidelines, such as in specific safeguards agreements between the Agency and states. Article XII.A.6 refers to "compliance with … conditions prescribed in the agreement between the Agency and the State or States concerned".[14] This is reflected in the reference in INFCIRC/153, paragraph 19, to "nuclear material required to

12 See the negotiating review, pp. 33-42.

13 See the Vienna Convention on the Law of Treaties (VCLT), Article 60.

14 Also relevant is Article XI.F.4, which refers to "the safeguards provided in article XII, the relevant safeguards being specified in the agreement". While Article XI.F.4 is written in terms of a "project agreement", the intention is consistent with and helps clarify Article XII.A.6.

be safeguarded under the Agreement" (underlining added). Whether there is compliance with the conditions prescribed in an agreement obviously depends on the terms of that agreement – a situation that has led to the Statute's safeguards provisions being described as being "non-self-executing". In other words, their legal effect depends on whether and how they are incorporated in a specific agreement.

The INFCIRC/153 negotiating review shows a key objective of the Safeguards Committee was to ensure that the elaboration of safeguards conditions in INFCIRC/153 agreements did not result in any diminution of the IAEA's statutory rights.[15] The Committee drew a distinction between those safeguards conditions in Article XII.A, which require elaboration in specific agreements, and the Agency's statutory rights and responsibilities in Article XII.C, which are unaffected by such agreements.[16]

Interpreting INFCIRC/153, paragraph 19

As noted above, paragraph 19 does not expressly refer to "non-compliance", but does so indirectly through the reference to reporting as provided for in Article XII.C. The Safeguards Committee took it as self-evident that the Agency's statutory rights apply under INFCIRC/153 agreements, there was no need to repeat the provisions of Article XII.C.

What then was the point of the reference to Article XII.C? This was spelled out in the negotiating review:

> … the basic purpose and intent of paragraph 19 are clear – to enable the Board to take the actions allowed by the Agency's Statute even when it cannot reach a definitive finding of non-compliance.[17]

The Safeguards Committee was concerned that realistically it was unlikely the IAEA could prove diversion; a real-life situation was unlikely to be so clear-cut. In such circumstances, where the Agency has taken the actions available to it and suspicion remains, the Agency must be able to avail itself of its rights under Article XII.C if it considers this is warranted.

The use of the term "may" in paragraph 19 – the Board may make the reports provided for in Article XII.C – should be seen in this light. "May" was not meant in a discretionary sense – that if the Board reached a finding of non-compliance it could choose not to report as required by Article XII.C – but rather in an enabling sense, to confirm that in the case of sufficient suspicion of diversion the Board can reach a finding of non-compliance and report accordingly.

Reaching a non-compliance finding

Diversion is an obvious case of non-compliance – if the Board is able to find there is diversion, it must make a non-compliance report accordingly. If the facts are less clear, then paragraph 19, and also paragraph 18, set out the process to apply.

Paragraph 18 enables the Board to call upon the state to take action that is

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15 Negotiating review, pp. iv and 4.

16 The distinction between Article XII, paragraphs A and C, is seen in INFCIRC/66, paragraph 2, which indicates it is only matters covered in Article XII.A that depend on inclusion in a safeguards agreement.

17 Negotiating review, pp. 143-5.

> … essential and urgent in order to ensure verification that nuclear material ... is not diverted to nuclear weapons.

Paragraph 19 provides that

> … the Board shall take account of the degree of assurance provided by the safeguards measures that have been applied and shall afford the State every reasonable opportunity to furnish the Board with any necessary reassurance.

Thus, in determining whether there are sufficient grounds for suspicion of diversion, the Board needs to consider the facts as presented by the Director General and all information available to it, as well whether the state has taken actions required of it, provided necessary reassurances, and cooperated fully to resolve the situation.

The negotiating review shows the Safeguards Committee was concerned to achieve a balanced solution: while the Agency should have its rights under Article XII.C preserved, states required a measure of protection against "trivial" issues, "where it did not go to the heart of the matter, namely diversion". The review notes that the requirement for the Board to "afford the state every reasonable opportunity to furnish any ... necessary reassurance" provides not only procedural protection to the state, but an important additive ground for action by the Board, should the state fail to avail itself of this opportunity.

Refusal of cooperation

Where a state refuses to cooperate with the IAEA in implementing a safeguards agreement, so that the Agency is unable to exercise its rights and meet its responsibilities, this will amount to a fundamental violation of general international law[18] as well as the specific terms of the agreement.

Examples of refusal of cooperation would include not facilitating a special inspection, and not taking action called for the Board as being essential and urgent under INFCIRC/153, paragraph 18.

There could be circumstances, such as a major safety problem, where a state may have reasonable grounds for not facilitating access to a site for a limited time. In this case INFCIRC/153, paragraph 76(d), requires the state and the Agency to promptly make arrangements with a view to enabling the Agency to discharge its safeguards responsibilities in the light of these limitations.[19] "Refusal of cooperation" describes circumstances where the state does not make good faith efforts to find alternative means of satisfying the Agency's requirements.

While it is reasonable to assume that a state refusing to cooperate with implementing its safeguards agreement may be trying to conceal diversion, it is likely that the lack of cooperation will prevent the IAEA from verifying whether or not this is the case. Thus, in terms of paragraph 19, the Agency will be "unable to verify there has been no diversion". In these circumstances it is not necessary for the Agency to reach a finding on diversion; frustration of the operation of the agreement will amount to a material breach and be sufficient grounds for a non-compliance finding.

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18 Having regard to the principle of pacta sunt servanda – agreements must be performed in good faith.

19 The Director General is to report each such arrangement to the Board. To date paragraph 76(d) has not been invoked.

Failure to declare nuclear material or nuclear activities

All CSA states are obliged to accept safeguards on all nuclear material in all peaceful nuclear activities within the state's territory or carried out under its jurisdiction or control anywhere. Accordingly, it might be thought that any failure to declare nuclear material, or nuclear activities, is a fundamental violation of a CSA and should be treated as non-compliance. However, in two cases of failure to declare brought to the Board – South Korea in 2004 and Egypt in 2005-8 – the Board considered the safeguards breaches very serious, but stopped short of a non-compliance finding.

In addition to these cases, there have been other, less serious, cases of undeclared nuclear material that were satisfactorily resolved by the Secretariat without the involvement of the Board. To understand these outcomes, we need to consider the factors that should be taken into account in determining whether, in a specific case, failure to declare will be regarded as non-compliance.

It is not uncommon for issues to arise in the implementation of a safeguards agreement. These can be regarded as "discrepancies" – inconsistencies that are readily resolved – or "anomalies" – circumstances that could potentially indicate diversion, misuse of facilities, or affect the ability of the IAEA to draw safeguards conclusions. Anomalies may be reported to the Board, and could lead to a non-compliance finding, if they remain unresolved.

The starting presumption is that the failure to declare may be part of a diversion strategy, thus shifting the evidentiary burden to the state. The onus is on the state to satisfy the Agency that the failure is not related to diversion. It will be important to look at the nature of the nuclear material (quality and quantity) or nuclear activities involved, and how these might fit into an acquisition path[20] for the state concerned. One significant factor would be indicators of research and development activities of possible nuclear weapon application.

There can be a number of reasons for a state failing to declare particular nuclear material, or even particular nuclear activities, including misunderstanding, miscommunication, or inadequate regulatory oversight. Failure by the national safeguards authority could reflect factors such as insufficient training, lack of regulatory independence, or poor safeguards culture. All of these problems were evident in the cases of South Korea and Egypt referred to above.

A key question is whether the failure to declare could indicate diversion, or whether the Agency is not able to verify that there has been no diversion. In some circumstances, looking at the totality of facts, and also taking account of the actions and factors referred to in INFCIRC/153, paragraphs 18 and 19, the Board may be satisfied there has been no diversion. On the other hand, some failures will be so serious in terms of safeguards objectives – for example, failure to declare an enrichment or reprocessing facility – that the Board will conclude diversion is the most likely explanation.

20 Acquisition path analysis involves the analysis of all plausible pathways or strategies for a state to acquire nuclear material usable for the manufacture of a nuclear weapon, to determine whether a proposed set of safeguards measures would provide sufficient detection capability.

4. Conclusion

Non-compliance is a material breach of a safeguards agreement, that is, a violation of a provision essential to the accomplishment of the object or purpose of the agreement. The violation must be sufficiently serious to warrant reporting to the Security Council.

The most obvious form of non-compliance is diversion – use of nuclear material that is subject to a peaceful use commitment for a nuclear weapon purpose. Non-compliance could also take the form of refusal to co-operate in implementing the safeguards agreement.

Recognising that definitively proving diversion is likely to be difficult, the Board may make a non-compliance finding if it concludes the Agency is unable to verify there has been no diversion. The Board is to take account of all relevant facts and circumstances, including the degree of assurance provided by the safeguards measures applied, the level of cooperation by the state and the reassurance given by the state. In some circumstances the presumption of diversion will be compelling (for example detection of an undeclared enrichment or reprocessing plant), in other cases the state may be able to provide a satisfactory explanation and take remedial action to ensure there is no recurrence.

The way the terms “diversion” and “non-compliance” are interpreted is of critical importance in a number of contexts, including the development and implementation of safeguards measures, the formulation of safeguards conclusions, and the evaluation of safeguards effectiveness. It is essential to ensure there is a common understanding of these terms in safeguards practice and documentation. It is recommended that the IAEA, in consultation with Member States, consider how to further this, including for example through inclusion in the revision of the Safeguards Glossary.