Chapter 10

IAEA Safeguards: Correctness and Completeness of States' Safeguards Declarations

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Abstract In the light of the occasional challenges in recent years to the legal authority of the International Atomic Energy Agency (IAEA) to verify the correctness and completeness of States' declarations under comprehensive safeguards agreements, the chapter assesses the law and practice on this issue since the early 1990s. In particular, the chapter focuses right and obligation of the IAEA to verify the correctness and completeness of States' declarations—one of the most fundamental principles in the implementation of comprehensive safeguards agreements. The chapter provides a detailed textual and historical analysis indicating that, in fulfilling that obligation, the IAEA is not limited to access to information about nuclear material which has been declared by the Agency, or to locations where such material has been declared by the Agency. A contrary interpretation would cause the IAEA to revert to a pre-1991 approach to verification that focused primarily on declared nuclear

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material, which resulted in the IAEA's failure to detect Iraq's undeclared nuclear programme.

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10.1 Introduction

In the context of international safeguards, fewer legal issues have been as keenly debated as the authority of the International Atomic Energy Agency (IAEA) to verify the correctness and completeness of States' declarations under comprehensive safeguards agreements. Put more precisely, the issue is whether the IAEA has the mandate and the authority to verify that no declared nuclear material is diverted for prohibited purposes and that there are no undeclared nuclear material or activities in a State which has concluded such an agreement.¹

While the law and practice in that regard have well established an affirmative response since the early 1990s, in the light of the occasional challenges to that authority in recent years, it bears restating the most fundamental principles in the implementation of the comprehensive safeguards agreements: that the IAEA has the right and obligation to verify the correctness and completeness of State declarations and that that right and obligation derive from the agreements themselves.

10.2 Historical Overview

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT)² tasked the IAEA with the verification of the fulfilment by non-nuclear-weapon States (NNWSs) of their obligations under the treaty "with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices." To that end, the NPT required each NNWS to conclude with the IAEA an agreement for the application of safeguards on all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction, or

¹Much of the material contained in this chapter is derived, with permission, from several publications authored or co-authored by Laura Rockwood, who served for 28 years as the senior legal adviser on all aspects of the negotiation, interpretation and implementation of IAEA safeguards, and was the principal author of the document that became the Model Additional Protocol. The publications include Rockwood and Johnson 2015; Rockwood 2014. The author also drew on material from Albright et al. 2012.

²Treaty on the Non-Proliferation of Nuclear Weapons, opened for signature 1 July 1968, entered into force 5 March 1970 (NPT).

carried out under its control anywhere—so-called ‘full scope’ or ‘comprehensive’ safeguards agreements (comprehensive safeguards agreements).

With the entry into force of the NPT in 1970, the Member States of the IAEA, in an open-ended committee of the Board of Governors (Committee 22), negotiated the document that serves as the basis for all comprehensive safeguards agreements: INFCIRC/153 (Corr.), *The Structure and Content of Agreements Between the Agency and States Required in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons*. All comprehensive safeguards agreements concluded by the IAEA since then have been based on INFCIRC/153 and the model agreement derived from it reproduced in GOV/INF/276.³

The IAEA had been implementing safeguards under comprehensive safeguards agreements for 20 years at the time it uncovered the hidden nuclear programme of Iraq in 1991. During those two decades, the Agency’s safeguards activities were, as a practical matter rather than due to a lack of legal authority, focused primarily on verifying declared nuclear material at declared facilities. Safeguards were implemented and evaluated on a facility-by-facility basis, rather than by examination of the State as a whole. As a consequence of this approach, although the Agency routinely sought to verify that there was no undeclared production of nuclear material at declared facilities, in particular at research reactors, it did not seek to verify that there was no undeclared nuclear material elsewhere in the State.

The flaw in that approach became evident with the discovery of Iraq’s undeclared nuclear activities and clandestine nuclear weapons programme in 1991. This discovery triggered a reassessment of the then-conventional, albeit ill-founded, belief that the IAEA’s legal authority under comprehensive safeguards agreements was limited to verifying nuclear material and facilities declared by the State.

Member States of the IAEA made it clear that more should, and could, be done by the IAEA with a view to providing assurances not just of the non-diversion of declared nuclear material, but of the absence of undeclared nuclear material and activities in such States. In conjunction with the IAEA Secretariat, the Board of Governors re-examined the Agency’s focus on declared nuclear material and concluded that, based on the existing legal authority reflected in INFCIRC/153, the IAEA had the right and obligation to verify the correctness and the completeness of States’ declarations.

As detailed later in this chapter, between 1991 and 1993, the IAEA Board and General Conference took a number of decisions reaffirming that right and obligation to ensure that, in a State with a comprehensive safeguards agreement, no nuclear material, whether declared or undeclared, is diverted to nuclear weapons or other nuclear explosive devices. It bears noting that all of these decisions were taken long before the IAEA even contemplated additional legal authority, and that this right and obligation has been confirmed consistently by the policy making organs of the IAEA since the early 1990s.

At the end of 1993, the IAEA Secretariat, at the request of the Board of Governors, initiated an ambitious programme to develop a comprehensive set of measures for strengthening safeguards: Programme 93+2. These measures, which were presented

³IAEA 1974.

to the Board in February 1995,⁴ comprised two parts. The first part consisted of measures that could be implemented under the existing legal authority of comprehensive safeguards agreements. The most significant of these measures was a profound change in the IAEA's evaluation of information available to it about a State. Instead of assessing the results of its verification activities separately for each individual facility in a State, the IAEA would visualize the State's nuclear programme in a coherent and connected way by looking at the State as a whole. The second part consisted of measures that the Secretariat proposed be implemented on the basis of a new legal instrument. These measures were eventually transformed into the Model Additional Protocol, which the Board approved in May 1997.⁵

The Model Additional Protocol was negotiated by another open-ended committee of the Board of Governors (Committee 24). It was designed as a model for protocols to be concluded with States party to comprehensive safeguards agreements, with a view to strengthening the IAEA's ability to fulfil its obligations under such agreements by providing the IAEA with complementary authority to request access, on a more routine basis, to additional information and locations related to a State's nuclear fuel cycle.

We have come a long way since then, but we still hear questions about the legal basis for the IAEA's actions. Some of that is because people are new to the issues and unfamiliar with the history; some are motivated by a wish to constrain the IAEA's authority to take those actions. Whatever the reason, it is important to be clear about that authority.

10.3 Treaty Interpretation

An extensive analysis of the application of the general rules of treaty interpretation is published in *Nuclear Non-Proliferation in International Law, Volume II: Verification and Compliance*.⁶ The following draws on that analysis.

In accordance with the general rules of interpretation codified in both the Vienna Convention on the Law of Treaties between States and the Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations (collectively referred to as the 'VCLTs'),⁷ these safeguards agreements must be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the agreements in their context and in the light of their object and purpose. Account is also to be taken of any subsequent agreement between the

⁴IAEA 1995, Annexes 1 and 4.

⁵IAEA 1997.

⁶Rockwood and Johnson 2015, pp. 57–94.

⁷Vienna Convention on the Law of Treaties, opened for signature 23 May 1969, entered into force 27 January 1980; Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations, opened for signature 21 March 1986, not yet in force.

parties regarding the interpretation of the agreements or the application of its provisions and any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation.

A plain reading of INFCIRC/153 makes clear that a comprehensive safeguards agreement requires the IAEA to provide assurances that all declared nuclear material of a State is under safeguards and that the State has declared and placed under safeguards all nuclear material that is required to be declared. Paragraphs 1 and 2 of INFCIRC/153 relate, respectively, to the basic undertaking of the State to accept safeguards (para 1) and the IAEA's right and obligation to apply safeguards (para 2). Each comprehensive safeguards agreement contains articles which correspond to those paragraphs.

Paragraph 1 of INFCIRC/153 requires the State to "accept safeguards, ... on *all* source or special fissionable material in all peaceful nuclear activities within its territory, under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices" (emphasis added).

Paragraph 2 of INFCIRC/153 provides for the Agency's "*right and obligation to ensure that safeguards will be applied, ... on all source or special fissionable material in all peaceful nuclear activities within the territory of the State, under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices*" (emphasis added). The drafters of INFCIRC/153 agreed on this formulation of para 2 after due consideration and explicit rejection of a proposal by one member State that "safeguarding and inspection ... shall be concerned solely with the material reported upon by the State concerned."⁸

A review of other provisions of INFCIRC/153 further supports this interpretation.

INFCIRC/153 requires that, upon entry into force of a comprehensive safeguards agreement, the State is to submit to the IAEA an initial report of all nuclear material which is to be subject to safeguards and information with respect to all existing nuclear facilities.⁹ It authorizes the IAEA to request access to the State to verify such information in the form of inspections (ad hoc, routine and special inspections) and design information verification.

Ad hoc inspections are utilized, inter alia, for verifying the information contained in the State's initial declaration of nuclear material [para 71(a)]. Paragraph 76(a) provides that ad hoc inspections for such purposes may be carried out at "any location where the initial report *or any inspections carried out in connection with [the initial report] indicate that nuclear material is present*" (emphasis added), thereby permitting the IAEA to request access not only to locations declared by the State in its initial report, but to other locations not declared by the State.

Routine inspections are carried out at facilities, and at locations outside facilities where nuclear material is customarily used (LOFs), to verify consistency of the State's reports with its records, to verify "the location, identify, quantity and composition of

⁸International Energy Associates Ltd 1984, pp. 33–44.

⁹IAEA 1972, paras 62 and 42.

all nuclear material subject to safeguards under the Agreement” and to verify possible causes of certain discrepancies. Pursuant to para 76(c) of INFCIRC/153, access to carry out routine inspections is limited to agreed strategic points and to the records maintained pursuant to the comprehensive safeguards agreement. Paragraphs 78–82 limit the number, frequency and intensity of routine inspections.

Paragraph 73(b) of INFCIRC/153 authorizes the Agency to carry out special inspections, inter alia, if it “considers that information made available by the State, including explanations from the State and information obtained from routine inspections, *is not adequate for the Agency to fulfil its responsibilities under the Agreement*” (emphasis added). As reflected in para 2 of INFCIRC/153, those responsibilities include ensuring that safeguards are applied on *all* nuclear material required to be declared by the State. Paragraph 73 explicitly provides that an inspection shall be deemed to be special when it is either additional to the routine inspection effort provided for in paras 78–82, or “*involves access to information or locations in addition to the access specified in paragraph 76 for ad hoc and routine inspections, or both*” (emphasis added).

Paragraph 19 of INFCIRC/153 provides that, “if the Board, upon examination of relevant information reported to it by the Director General finds that 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 or other nuclear explosive devices”¹⁰ (emphasis added), the Board “may make the reports provided for in para C of Article XII of the Statute and may also take, where applicable, the other measures provided for in that paragraph.”¹¹ The formulation of para 19 reaffirms the Agency’s right to ensure not just that no declared nuclear material is diverted to proscribed purposes, but that no nuclear material, whether declared or undeclared, is diverted for such purposes.¹²

As described in para 28 of INFCIRC/153, the objective of safeguards under comprehensive safeguards agreements is twofold:

The Agreement should provide that the objective of safeguards is the *timely detection of diversion* of significant quantities of nuclear material from peaceful nuclear activities to the manufacture of nuclear weapons or other nuclear explosive devices or for purposes unknown, and *deterrence of such diversion by the risk of early detection* (emphasis added).

¹⁰IAEA 1972.

¹¹Article XII.C of the IAEA Statute requires the Director General to transmit to the Board of Governors reports of non-compliance. It provides further that the Board “shall call upon the recipient State or States to remedy forthwith any non-compliance which it finds to have occurred. The Board shall report the non-compliance to all members of the Security Council and General Assembly of the United Nations.”

¹²There are numerous other provisions in INFCIRC/153 which demonstrate the drafters’ clear intention. Paragraphs 7, 8, 11, 12, 13 and 18 of INFCIRC/153 all refer to “nuclear material subject to safeguards”, which was understood by the Committee to mean not simply that material which was being safeguarded but that which is required to be safeguarded. According to Myron Kratzer, the lead US negotiator of INFCIRC/153, the more explicit term “nuclear material required to be safeguarded” was used in para 19 in recognition that “the meaning was perhaps clearer, but not different from that of ‘nuclear materials subject to safeguards’”, International Energy Associates Ltd. 1984.

As noted in the analysis referred to previously, it follows that the ordinary meaning of the terms of INFCIRC/153 and the comprehensive safeguards agreements concluded by the IAEA on the basis of that document, in their context and in the light of their object and purpose, “were intended to provide for verification of the non-misuse of any nuclear material in a State, whether declared or undeclared. If anything, the text of INFCIRC/153 makes even clearer that agreements based on that document provide for IAEA verification of the correctness and completeness of States’ declarations.”¹³

Clearly it would defeat the very object and purpose of such safeguards agreements if the IAEA were precluded from assuring itself that no nuclear material remained outside of safeguards and available for proscribed activities.

Under the VCLTs, in interpreting a treaty, account is also to be taken of any subsequent agreement between the parties regarding the interpretation of the agreements or the application of its provisions and any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation. The following section describes the subsequent agreements and practices that collectively reaffirm the interpretation.

10.4 The Fundamentals of Comprehensive Safeguards

10.4.1 A State is Required Under a Comprehensive Safeguards Agreement to Declare All Nuclear Material to the Agency; A Failure to Do So Is Inconsistent with That Obligation

Based on a plain reading of INFCIRC/153, as well as decisions by the Board of Governors, a State is required, by virtue of para 1 of its comprehensive safeguards agreement, to declare *all* nuclear material and facilities to the Agency, and a failure to do so is inconsistent with that obligation.

- (a) INFCIRC/153: Paragraph 1 of INFCIRC/153 requires that a State “accept safeguards, in accordance with the terms of the Agreement, on *all* source or special fissionable material in all peaceful nuclear activities within its territory, under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices” (emphasis added). Paragraph 62 also requires an initial report by the State of “*all nuclear material* which is to be subject to safeguards”.

The word “all” is also included, for example, in paras 7, 31 and 32 (on the State’s obligation to establish and maintain a system of accounting for and

¹³Rockwood and Johnson 2015, pp. 57–94.

control of “all nuclear material subject to safeguards” and para 41 (requiring the Agency to establish a unified inventory of “all nuclear material in the State subject to safeguards”).

The negotiating history of INFCIRC/153 makes clear that the reference to nuclear material “in peaceful nuclear activities” was used in the light of the fact that the NPT permitted the use of nuclear material in a non-proscribed (non-explosive) military activity, and that nuclear material required to be safeguarded under the agreement could be withdrawn from the agreement in accordance with arrangements to be made with the Agency.

It was not intended, and should not be interpreted as meaning, that a State may exclude nuclear material from its declarations simply by placing it in a non-peaceful/military activity. Reading into para 1 an exclusion for nuclear material which is in a military activity would defeat the fundamental object and purposes of a comprehensive safeguards agreement, in contravention of Article 31(1) of the VCLTs.

- (b) Board Decisions: That a State is obliged to declare *all* nuclear material to the IAEA under a comprehensive safeguards agreement, and that a failure to do so constitutes a breach of that obligation, has been confirmed by the Board of Governors on numerous occasions:
- In the Director General’s first substantive report to the Board on the IAEA’s findings in Iraq, in July 1991,¹⁴ he informed the Board of Iraq’s failure to declare nuclear material under its comprehensive safeguards agreement, concluding that Iraq had not been in compliance with its obligations under its safeguards agreement, “in particular with respect to the obligation to accept safeguards on all nuclear material in all peaceful nuclear activities”. Based on that report, on 18 July 1991, the Board adopted resolution GOV/2532¹⁵ condemning Iraq’s non-compliance with its obligation to accept safeguards on all nuclear material in all peaceful nuclear activities as a consequence of its failure to declare certain nuclear material and activities to the Agency. In September 1991, the Board noted Iraq’s further non-compliance with its reporting,¹⁶ and requested that the Director General report such non-compliance to the Security Council.
 - In June 1992, the Board, acting through a chairman’s summary, took note of the Director General’s report on non-compliance by the former regime in Romania for its failure to declare activities related to the reprocessing of a small amount of plutonium in 1985¹⁷ (which had been brought to the IAEA’s attention by the successor Romanian government), and requested

¹⁴IAEA 1991f.

¹⁵IAEA 1991g.

¹⁶IAEA 1991h, paras 46–47.

¹⁷Findlay 2015.

that the Director General report the non-compliance to the UN Security Council “for information purposes.”¹⁸

- On 25 February 1993, the Board of Governors adopted resolution GOV/2636¹⁹ in connection with the Democratic People’s Republic of Korea (DPRK), in which, noting inconsistencies between DPRK declarations and the Secretariat’s findings that had given rise to doubts about the completeness of the DPRK’s initial nuclear material declarations, it recalled its December 1992 session, in which the Board had stressed that it was “essential to verify the correctness and assess the completeness of the [DPRK’s] Initial Report”, and decided that the access to additional information and two additional sites requested by the Director General in accordance with the provisions in connection with special inspections was “essential and urgent in order to resolve differences and to ensure verification of compliance with INFCIRC/403”.
- When the DPRK was not forthcoming with the requested access, on 1 April 1993 the Board adopted resolution GOV/2645²⁰ in which it found, pursuant to Article 19 of the DPRK’s safeguards agreement, that the Agency was not able to verify that there had been no diversion of nuclear material required to be safeguarded under the terms of the safeguards agreement to nuclear weapons or other nuclear explosive devices, and decided to report the DPRK’s non-compliance to the Security Council.
- In September 2003, the Board adopted resolution GOV/2003/69 (12 September 2003)²¹ in which it recalled the Director General’s report of 6 June 2003 (GOV/2003/40)²² which had expressed concern over failures by Iran to report material, facilities and activities pursuant to its comprehensive safeguards agreement, and called upon Iran to ensure that there were no further “failures to report material, facilities and activities that Iran [was] obliged to report pursuant to its [comprehensive] safeguards agreement”.
- In November 2003, the Board adopted another resolution in which, noting with deep concern that Iran had failed in a number of instances over an extended period of time to “meet its obligations under its [comprehensive safeguards agreement] with respect to the reporting of nuclear material, and its processing and use, as well as the declaration of facilities where such material has been processed and stored”, “noting in particular with the gravest concern that Iran enriched uranium and separated plutonium in undeclared facilities in the absence of IAEA safeguards”, and stressing the need for effective safeguards in order to prevent the use of nuclear material for prohibited purposes in contravention of [comprehensive safeguards agreements], requested the Director General “to take all steps necessary to

¹⁸IAEA 1992a.

¹⁹IAEA 1993a.

²⁰IAEA 1993b.

²¹IAEA 2003a.

²²IAEA 2003b.

confirm that the information by Iran on its past and present nuclear activities is correct and complete as well as to resolve such issues as remain outstanding” (OP 4).

Thus, it cannot be challenged that the presence in a State with a comprehensive safeguards agreement of undeclared nuclear material, facilities or activities required to be declared to the Agency under a comprehensive safeguards agreement constitutes a breach of the State’s obligations thereunder.

10.4.2 The Agency Is Required to Verify Under a Comprehensive Safeguards Agreement that Safeguards Are in Fact Applied to All Such Material

Based on a plain reading of INFCIRC/153, as well as decisions by the Board of Governors and the General Conference, the Agency is required, by virtue of para 2 to verify not just the correctness, but the completeness of States’ declarations concerning nuclear material, facilities and activities:

- (a) INFCIRC/153: In accordance with para 2 of INFCIRC/153, the Agency has the right, and the obligation, to ensure that safeguards are applied on “*all*” peaceful nuclear activities. Indeed, as noted, during the negotiation of INFCIRC/153, a proposal was made to limit the Agency’s obligation to nuclear material which has been reported by the State; this proposal was rejected, and replaced with “*all*”. In that context, the Secretariat noted that “the deliberate failure by the State to inform the Agency of nuclear material might also be considered to imply diversion”. The word “*all*” is also included, for example, in para 72(b) (pursuant to which the Agency may make routine inspections to “verify the location, identify, quantity and composition of all *nuclear material* subject to safeguards”) and para 74(b) (which authorizes the Agency to make independent measurements of “all *nuclear material* subject to safeguards”).

Paragraph 76(a), which refers to ad hoc inspections, specifically anticipates the possibility of Agency access to a location other than those identified in the State’s initial report, providing that the Agency may also carry out such inspections at any location where an inspection carried out in connection with the initial report merely “indicates” that nuclear material is present.

As indicated above, para 19 provides that, “if the Board upon examination of relevant information reported to it by the Director General finds that 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 or other nuclear explosive devices” (emphasis added), the Board “may make the reports provided for in para C of Article XII of the Statute and may

also take, where applicable, the other measures provided for in that paragraph.”²³ The phrase “required to be safeguarded” used in para 19²⁴ is not different, but rather a clearer, and more explicit, formulation of the term.

(b) Board and General Conference:

- In September 1991, IAEA Member States, in resolutions adopted by the Board of Governors²⁵ and the General Conference,²⁶ requested the Director General to verify the “correctness and completeness of the inventory of South Africa’s nuclear installations and material” under its newly approved comprehensive safeguards agreement.
- In February 1992, the Board, acting through a chairman’s summary, reaffirmed the IAEA’s right under comprehensive safeguards agreements to ensure that all nuclear material in all peaceful nuclear activities is under safeguards.²⁷
- In February 1993, the Director General submitted a report to the Board of Governors informing it of an anomaly the Secretariat had discovered in the DPRK. The anomaly had given rise to doubts about the completeness of the country’s initial report of nuclear material under its comprehensive safeguards agreement. Based on the Director General’s report and a detailed briefing by the Secretariat, the Board adopted a resolution in which it stressed that it was “essential to verify the correctness and assess the completeness” of the DPRK’s initial report and decided that the access to additional information and locations requested by the Director General was “essential and urgent in order to resolve differences and to ensure verification of compliance” by the DPRK with its comprehensive safeguards agreement.²⁸
- In October 1993, under a new agenda item on strengthening safeguards, the General Conference adopted a decision noting the decisions taken by the

²³Article XII.C of the IAEA Statute requires the Director General to transmit to the Board of Governors reports of non-compliance. It provides further that the Board “shall call upon the recipient State or States to remedy forthwith any non-compliance which it finds to have occurred. The Board shall report the non-compliance to all members of the Security Council and General Assembly of the United Nations.”

²⁴The same phrase is used in para 14 on the non-application of safeguards to nuclear material to be used in non-peaceful activities. Paragraph 14 prescribes certain procedures “if the State intends to exercise its discretion to use *nuclear material which is required to be safeguarded* thereunder in a nuclear activity which does not require the application of safeguards under the Agreement” (emphasis added).

²⁵IAEA 1991a. The draft resolution, submitted by Zaire on behalf of the African Group, was adopted without a vote.

²⁶IAEA 1991b.

²⁷IAEA 1992b, paras 48, 83 and 84.

²⁸IAEA 1993a. The draft resolution was adopted without a vote. The Director General’s report and the official records of the Board’s discussion, which was held in closed session, have not been publicly released by the IAEA.

Board over the previous 12 months to strengthen safeguards, and called on Member States to cooperate in implementing them.²⁹

All of these actions took place well before the announcement of Programme 93+2 in December 1993.

In February 1995, the Director General provided an overview of the proposed measures for strengthening the SG system in a systematic and integrated manner, providing information on each of the proposed measures, including costs, benefits and whether a legal basis already existed for the Secretariat to implement that measure or complementary authority would be needed.

At the conclusion of its consideration of that report, the Board of Governors decided to approve the Chairman's summing up of its deliberations, in which it:

[reiterated] that the purpose of comprehensive safeguards agreements, where safeguards are applied to all nuclear material in all nuclear activities within the territory of a State party to such an agreement, under its jurisdiction or carried out under its control anywhere, is to verify that such material is not diverted to nuclear weapons or other nuclear explosive devices. To this end, the safeguards system for implementing *comprehensive safeguards agreements should be designed to provide for verification by the Agency of the correctness and completeness of States' declarations, so that there is credible assurance of the non-diversion of nuclear material from declared activities and of the absence of undeclared nuclear activities* (emphasis added).

10.4.3 In Fulfilling Its Obligation, the Agency Access Is Not Limited to Declared Nuclear Material or Locations

In fulfilling its obligation to verify the correctness and completeness of States' declarations under comprehensive safeguards agreements, the Agency is not limited to access to information about nuclear material which has been declared by the Agency, or to locations where such material has been declared by the Agency:

- (a) INFCIRC/153: The provisions related to ad hoc inspections affirm the Agency's right of access not only to nuclear material declared by the State, but to locations where there are indications of the presence of nuclear material. Under special inspections, access to information and locations in addition to that provided for under ad hoc and routine inspections, even if there is no indication of the presence of nuclear material at such locations.
- (b) Decisions of the Board: The 25 February 1993 resolution regarding the DPRK adopted by the Board of Governors (GOV/2636) decided that the access to additional information and two additional sites requested by the Director General in accordance with the provisions in connection with special inspections was "essential and urgent in order to resolve differences and to ensure verification of compliance with INFCIRC/403". The two sites were previously undeclared to the IAEA. Moreover, access to the two sites was not requested because of

²⁹IAEA 1993c.

suspicious of the presence of undeclared nuclear material at those sites, but rather because access was necessary for the IAEA to sample waste at those sites with a view to ascertaining if undeclared reprocessing had taken place in the DPRK and, if so, to what extent.

10.4.4 In Assessing Whether a State's Declarations Are Correct and Complete, the Agency Has the Authority to Use All Information Available to It

The Agency has the authority to use all information available to it in assessing whether a State has in fact declared to it all nuclear material required to be safeguarded under its comprehensive safeguards agreement.

- (a) INFCIRC/153: In his 1991 analysis of special inspections contained in GOV/2554, the Director General outlined the categories of information that should be available to the IAEA. They included (1) information collected in the course of routine safeguards activities; (2) information publicly available; and (3) information obtained by Member States through national means.³⁰

In his statement to the Board on 5 December 1991, the Director General stated that the crucial element in strengthening the ability of the safeguards system to detect any clandestine nuclear activities in States with comprehensive safeguards agreements was information. In an extensive statement recorded in the official records of the Board, he added:

If the State itself conceals a nuclear activity, the inspectorate must—as in the case of Iraq—have some other information as to where it should look. No inspectorate could “roam the entire territory of the State in a blind search for undeclared nuclear facilities.” For those reasons, he said, a fundamental modification needed to be made in the Agency’s practices: in making more extensive use of such information as the Agency already possessed, and in being prepared to accept critically examined information that might be offered to the Agency from outside. One sometimes heard the comment that the Agency should take account only of information communicated through official channels and that other information (whether from media or national intelligence services) was questionable. His own belief was that all information—whether official or non-official—had to be examined critically. He acknowledged the risk that information might be offered for ulterior motives, and it would be a mistake to rely on it. However, it would be a worse mistake to refuse to accept any other information. That was not to say that such information should automatically trigger requests for explanations by the States concerned. The information should be assessed carefully and critically, and the Director General would have to judge whether he/she

³⁰IAEA 1991c.

should endorse or decline the suggestion that a special inspection would be warranted.³¹

It is worth noting that Article VIII.A provides that Member States should make available such information as would, in the judgement of the Member State, be helpful to the Agency.

(b) Decisions of the Board:

The most classic example of the Board's implicit approval of the Agency's use of information provided by a Member State other than the safeguarded State is the case of the DPRK in February 1993. Based on the Director General's report, the Board adopted, without a vote, a resolution in which it decided that access under special inspections to additional information and locations was "essential and urgent". The Director General made clear that, the Agency, while having identified the anomaly through its own verification activities, had availed itself of satellite imagery obtained through "national technical means" to identify locations, access to which it believed would be helpful in resolving the outstanding issues concerning the DPRK's failure to declare nuclear material.

It should also be noted that the Agency did not seek access to the locations in question because it believed that there was undeclared nuclear material at those locations, but rather that access to sample the waste stored at those locations would assist in the resolution of the anomaly.

10.4.5 The Agency's Right and Obligation to Verify the Completeness of a State's Declarations Derives from the Comprehensive Safeguards Agreement

The fact that the Board took decisions requesting the Agency to verify completeness long before there was any consideration of additional legal authority demonstrates its acceptance that the Agency's obligation to verify completeness of a State's declarations derives from the comprehensive safeguards agreement itself, and is not dependent on the existence of an additional protocol. While the IAEA looks for indications of undeclared nuclear material and activities in all States with comprehensive safeguards agreements, it chooses as a matter of policy not to report on the absence of undeclared nuclear material in a State without the additional assurances provided by the measures contained in an additional protocol.

That the additional protocol provides us with additional tools to do that job better and on a more routine basis has been articulated in numerous annual Safeguards Implementation Reports and other Agency publications. The Board has never challenged that view.

³¹IAEA 1992c; IAEA 1992d, paras 131–132.

10.5 Summary

It is simply disingenuous to contend, as a few States have recently, that the examples of decisions by the Board and the General Conference are not germane to the issue of IAEA authority under comprehensive safeguards agreements either because they were related to the implementation of safeguards in specific States or because the acceptance of a chairman's summary does not constitute a formal decision.³² The safeguards agreements of South Africa and the DPRK are substantively identical, as are all comprehensive safeguards agreements. Furthermore, the Board has taken decisions on many occasions through the mechanism of a chairman's summary of its deliberations, including decisions with respect to the most sensitive of issues, non-compliance. This was the case for Iraq as well as Romania.³³

It is likewise disingenuous to argue that the IAEA's obligation under a comprehensive safeguards agreement to verify completeness derives exclusively from an additional protocol. The push by Member States for the IAEA to provide assurances of the absence of undeclared nuclear material and activities under such agreements—and, indeed, the Board and General Conference decisions confirming IAEA authority to do so—predated even the contemplation of new legal authority.

Some States question the need for an additional protocol if the IAEA already has the right to verify completeness of a State's declarations under a comprehensive safeguards agreement. The answer is straightforward: the IAEA's right and obligation to verify correctness and completeness derive from the comprehensive safeguards agreement, but in such an agreement, there are limited tools for doing so, such as special inspections. An additional protocol secures for the IAEA broader access to information and locations on a more routine, predictable, and reliable basis. This permits the IAEA to detect indications of undeclared nuclear material and activities earlier and more effectively than it otherwise would.

Another challenge to IAEA authority to verify the absence of undeclared nuclear material and activities in a State has been that proving a negative is impossible. In one of his reports to the Board on Programme 93+2, Hans Blix acknowledged that “[n]o safeguards system, no matter how extensive the measures, can provide absolute assurance that there has been no diversion of nuclear material or that there are no undeclared nuclear activities in a State.”³⁴ The IAEA made that point again in 2003 in its reports on Iraq to the UN Security Council, in which it acknowledged that

³²IAEA 2014, paras 25–160.

³³In July and September 1991, the Board found that Iraq's failure to declare nuclear material and facilities in connection with its clandestine uranium-enrichment and plutonium-separation programmes constituted non-compliance with its comprehensive safeguards agreement and requested the Director General to report the matter to the UN Security Council. The first decision was taken by a resolution, and the second decision was made through the mechanism of consensus adoption of a chairman's summary of the Board's deliberations. IAEA 1991d, e.

³⁴IAEA 1995, Annex 1, para 15.

proving a negative was not possible even with the authority granted under Security Council resolutions.³⁵

Yet, the IAEA can look for indications of undeclared activities. In the case of Iraq in 2003, having sought such indications and not found any, the Agency could conclude with a high degree of confidence that Iraq had not resumed its nuclear weapons programme. As it turned out, the IAEA was right.

Some critics contend that, although the IAEA has the right to follow up on indications of undeclared nuclear material and activities, it does not have the right to look for such indications. Again, the argument is disingenuous. If one does not look for something, one is not likely to find it. Would critics of completeness efforts conclude that the IAEA should not even try to determine whether such indications exist? Blix addressed that point in 1995 by invoking a person “looking for a lost key near a lighted street lamp who, when asked whether he was sure he had lost the key there, said ‘No, but it’s easier to look here.’”³⁶

As I noted in a publication cited earlier, the most immediate practical impact of acceding to such a reinterpretation would be to permit a State that has only a comprehensive safeguards agreement and no additional protocol to prevent the IAEA from investigating indications of undeclared nuclear material and activities in that State. If that reinterpretation is not addressed directly and rejected explicitly, safeguards could be forced to revert to a pre-1991 approach to verification that focused primarily on declared nuclear material, which resulted in the IAEA’s failure to detect Iraq’s undeclared nuclear programme. It is incumbent on all parties to understand what has already been achieved in strengthening safeguards so that it is not necessary to reinvent those achievements.

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³⁵“It is important to emphasize that there is always some degree of uncertainty in the verification process, and the Agency cannot provide absolute guarantees regarding the absence of small-scale nuclear activities, such as simulations on personal computers or lab work by a few scientists (or indeed, direct acquisition by a State of weapons usable nuclear material). ... Nevertheless, an intrusive inspection system [such as the one that the IAEA was implementing in Iraq] can minimize the risk of prohibited activities going undetected, and deter, through the risk of early detection, the revival of a nuclear weapons programme.” United Nations Security Council 2003 (containing the IAEA work programme in Iraq pursuant to Security Council Resolution 1284).

³⁶IAEA 1995, Annex 3, para 49.

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