

COMMISSION OF THE EUROPEAN COMMUNITIES

COM(83) 36 final

Brussels, 27th January 1983

REPORT FROM THE COMMISSION TO THE COUNCIL

on the implementation of the verification agreements
concluded by Euratom and its member states with the
International Atomic Energy Agency

REPORT ON THE IMPLEMENTATION OF THE VERIFICATION AGREEMENTS CONCLUDED BY EURATOM AND ITS MEMBER STATES WITH THE INTERNATIONAL ATOMIC ENERGY AGENCY

Brief commentary

1. The crucial importance of safeguards to ensure that nuclear materials are not unlawfully diverted for military purposes or for the purpose of manufacturing explosives was recognized at the beginning of the atomic era and was stressed once again in the communication from the Commission to the Council in February 1982 entitled "An energy strategy for the Community: the nuclear aspects"*. Emphasis was placed, in particular, on the fact that the situation of the Community in this field was unique in that it involved the coexistence of two multinational safeguard systems, one on a regional and the other on a world-wide scale.

2. For this reason, the Commission undertook to report to the Council on the implementation of the Verification Agreements concluded by Euratom and its Member States with the International Atomic Energy Agency (hereinafter called The Agency) which provide a legal basis for this coexistence.

The attached report fulfils that undertaking.

3. Since the report in question is the first of its kind to be produced by the Commission, it is necessary to furnish some historical background.

This background hinges on the following points:

- (a) differences between the Euratom safeguards system, set up in 1958, and that of the Agency, with particular regard to the scope, the ends and the means;
- (b) the influence on Euratom safeguards of the negotiation and entry into force in the early 1970s of the Non-Proliferation Treaty (NPT);
- (c) the structure and salient features of the Verification Agreement concluded in April 1973 between Euratom, its non-nuclear-weapon Member States and the Agency;

*COM(82)36 of 9 February 1982.

- (d) differences between that Agreement and those of the same type concluded by the Agency with non-Community countries that did not possess nuclear weapons and were signatories to the NPT, and, to a lesser degree, differences with respect to the Agreement concluded between the Agency and Japan in 1977;
- (e) Verification Agreements between Euratom, the United Kingdom and the Agency and between Euratom, France and the Agency, signed in 1976 and 1978 respectively, which take account of the status of those countries as Nuclear Powers;
- (f) reasons why the 1973 Agreement could not be fully applied before 1977;
- (g) intensification of the approach to non-proliferation on the broadest international scale, particularly after the Indian atomic explosion of 1974 and the new Agency requirements concerning the procedures for implementing the Agreement;
- (h) "special arrangements" of a provisional nature that came into effect between the parties concerned between 1977 and 1980.

4. A little over three years has passed since the last of the abovementioned special arrangements was made.

The Commission consequently feels that the Council's attention should be drawn to findings as regards the progress made in the application of the Verification Agreement as far as the non-nuclear-weapon Member States are concerned.

It would, however, be premature to do likewise as regards the Agreements concluded with the United Kingdom and with France, firstly because they entered into force more recently and secondly because the solution of certain problems that arise in the context of the first Agreement (NNWS)* might have favourable repercussions on the application of the latter (NWS)*.

5. First of all, it should be pointed out that a great deal has been achieved.

Almost 70% of the "facility attachments"*** have been finalized. The remaining 30%, most of which relate to small quantities of materials, will be so by the end of this year.

In addition, satisfactory arrangements have been made with regard to two key points, namely the planning of inspections and the information which Euratom is required to furnish to the Agency. The Agreement is thus effectively in operation.

* NNWS: Non-nuclear-weapon states.

** NWS: Nuclear-weapon states.

*** By this term is meant the arrangements subsidiary to the basic Agreement which define the procedures for applying safeguards installation by installation.

6. Nevertheless, a number of problems arose as the implementation of the Agreement progressed. They are described in the report. Some of them were detected by the Community inspectors themselves, while others were notified to the Commission by the Member State Governments or by the operators concerned.

7. During 1982, at the Commission's behest, the work of the Liaison Committees provided for in the Agreement was considerably speeded up for the very purpose of obtaining a better understanding of these problems and of exploring possible solutions.

8. The Commission is indeed aware that some of these problems can be solved only through a protracted effort based on a process of continually adapting the application of the Agreement to a reality which is changing from both the quantitative and the qualitative point of view.

Furthermore, it is faced with precise deadlines: for example, two of the special arrangements made during the period 1977-80 expire in September 1983; hence the need to activate the dialogue not only with the Agency but also with the Member States and the operators in the Community in order to collect as much information and as many opinions as possible with a view to proposing in good time the confirmation or modification of the arrangements in question.

9. The fact that the Board of Governors of the Agency, at its next meeting in February, will hold a thorough discussion on the problems that arise in the application of safeguards, on the solutions that can be considered and on the prospects of improving the system, prompts the Commission, for its part, to analyse in greater detail the application of the Verification Agreement in consultation with the Member States.

10. The Commission further believes that the application of the Verification Agreement must be assessed in a broader context, account being taken of the great importance of the Agency's safeguards system to the development of international trade in nuclear materials. Account must also be taken of the fact that the relations between the Community and the Agency go far beyond cooperation in the application of Verification Agreements.

11. The Commission invites the Council to consider this report. It also calls upon the Member States to express their views on the various points raised therein.

The views expressed will be of assistance to the Commission in its further work in this field as a whole.

The Commission further proposes that the report be sent to the Member States' Representatives to the Agency, with the request that they bear it in mind in the context of Community coordination, particularly in view of the forthcoming meeting of the Board of Governors on 22 February 1983. At that meeting, the Board will discuss, inter alia, the present status of the Agency's safeguards and ways and means of improving the system.

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Report on the implementation of the Verification Agreements
concluded by Euratom and its Member States with the
International Atomic Energy Agency

I. Introduction

1. The present report is a follow-up of the communication "An Energy Strategy for the Community: the nuclear aspects", sent by the Commission to the Council in February 1982 (*), in which the Commission undertook, inter alia, to place before the Council a full report on the implementation of the three Verification Agreements between Euratom, its various Member States and the International Atomic Energy Agency (hereinafter referred to as the Agency).

II. The Euratom Safeguards System

2. Under Article 2(e) of the Euratom Treaty, the Community has the task to "make certain, by appropriate supervision, that nuclear materials are not diverted to purposes other than those for which they are intended".

Chapter VII of the Treaty provides a safeguards system which enables the Community to discharge this basic task.

3. The main features of this system may be outlined as follows:

(a) Scope.

All nuclear materials, including ores, are subject to safeguards, except for certain materials intended to meet defence requirements;

(b) Aims.

The Community must ensure, on the internal level, that safeguarded materials are not diverted from their intended and declared uses.

On the external level, the Community must ensure the respect of "any particular safeguarding obligations" arising from its international agreements. In other words, it must verify that any obligations contracted towards third States, as to the uses of materials they supply, are complied with in the Community. The Community may also co-operate with external safeguards authorities: Euratom activities in this field are thus open to, and may be integrated into, worldwide developments, as foreseen in another basic provision of the Treaty, namely Article 2(h);

Finally it must ensure respect for the provisions of the Treaty relating to supply.

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(*) COM (82) 36 Final

(c) Means.

Chapter VII of the Treaty, besides setting out the Commission's safeguards obligations, endows it with appropriate powers for ensuring their fulfilment: namely the rights to obtain knowledge of basic technical characteristics of nuclear installations; to require the keeping and production of records permitting accounting for nuclear materials; to make inspections; and to apply sanctions.

The Treaty moreover establishes a direct relationship between the Community and the operators, at all stages, at the regulatory, executive and judicial levels: Euratom safeguards are thus supranational.

4. The comprehensive nature of the Euratom safeguards system has dispensed Member States from the need to set up national systems. And it is interesting to note that, prior to the entry into force of the Non-Proliferation Treaty (NPT), that is to say from 1958 to 1970, all third States which concluded co-operation agreements with the Community were content to rely on Euratom safeguards alone to supervise respect of such agreements within the Community.

III. Impact of the NPT on the Euratom Safeguards

5. At the time of the negotiation of the NPT, the Community was obliged to reflect as whether changes were needed in its safeguarding system, taking into account, in particular, the fact that its characteristics differ very substantially from those of the safeguards system of the International Atomic Energy Agency.

The Agency's system:

- (a) is of worldwide, as opposed to regional application;
- (b) is not supranational, being based instead on contractual relationships between the Agency and each State concerned;
- (c) does not cover ores;
- (d) is aimed at ensuring peaceful use of safeguarded materials, and does not deal with more specific obligations such as those contained in the Community's agreements with certain key supplier States.

Reliance by the Community on the Agency's system alone would have had two undesirable consequences. First, it would have given rise to problems concerning the Community's agreements with supplier States. Second, it would have led to replacement of an enduring system, firmly anchored in Community law, by one based on international agreements alone. In these circumstances, the Community took the view that its safeguards system should be maintained.

6. This decision made it necessary to organise the coexistence of both systems, without prejudice to their specific characters, since their unco-ordinated application would have imposed unacceptable burdens on Community operators. It would also have denied to the Agency the benefits of the Community's multinational safeguards system.

7. The aim of ensuring close co-ordination of the two systems in the implementation of the NPT was given its first concrete expression in the Agreement signed by the Community, its Non-Nuclear Weapon States (NNWS) and the Agency on 5 April 1973 (the Verification Agreement).

It flowed naturally from Article III of the NPT, which reads "... Non-Nuclear Weapon States Party to the Treaty shall conclude agreements with the International Atomic Energy Agency ... either individually or together with other States ..."

IV. The Verification Agreement between Euratom, its NNWS and the Agency, and related documents

A. Structure

8. The Agreement has a complex structure which may be summarised as follows:

- (a) The main body of the Agreement follows, with certain significant exceptions, the general pattern of the Agency's NPT Agreements, as laid down in the Blue Book (1);
- (b) A Protocol sets out special provisions relating to the particular nature of Euratom safeguards;
- (c) Subsidiary Arrangements (general part), specify in terms of general application how the procedures laid down in the Agreement are to be applied. They include the Rules and Methods to be used for the calculation of inspection efforts as well as specific examples in this respect;
- (d) Subsidiary Arrangements (Facility Attachments) specify, facility by facility, how the Agreement is to be applied. They show, inter alia, for each facility, the inspection effort of both Euratom and the Agency;
- (e) A number of special implementing understandings (Joint Teams, observation principle, etc ...) supplement the general part of the Subsidiary Arrangements: they are however separate documents.

The documents at (d) and (e) were negotiated after entry into force of the Agreement in 1977.

Amendments to the documents at (a) and (b) require, not only approval by the Council, and by the Agency's Board of Governors, but also ratification by Member States of the Community.

Amendments to the documents at (c), while also requiring approval by both the Council and Board, are not subject to ratification by Member States. It should be noted that the Rules and Methods must be reviewed from time to time, to take into account new technological developments in the field of safeguards and experience gained.

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(1) See Agency Document INFCIRC 153, entitled "Structure and Content of Agreements between the IAEA and States required in connection with the NPT". This document, approved by the Agency's Board of Governors in May 1971, is generally known as "The Blue Book".

The documents at (d) may be amended without involving the Council and the Board, following, however, under an internal Community arrangement, approval by the Member State concerned.

The documents at (e) are at present of a less enduring character: in particular, in some of them it is expressly provided that they will expire at a fixed date.

B. Specific Features

9. The specific features of the Verification Agreement may be outlined as follows :

- it is recognised that Member States have assigned to the Community wide powers which cover all essential elements of safeguards, and that the Community has the task of ensuring, in line with NPT provisions, that nuclear materials on the territories of its NNWS are not diverted to nuclear weapons or other nuclear explosive devices;
- the Agency is required to take account of the effectiveness of Euratom safeguards and to make full use thereof so as to avoid unnecessary duplication;
- the Community is associated with the Agency in the examination of the basic technical characteristics of the installations;
- the Community has the task of analysing the reports transmitted by operators;
- close co-operation is contemplated between the two authorities during inspections;
- the number, intensity and procedures of Agency inspections are to be determined according to the Rules and Methods. These lay down the inspection efforts of both Euratom and the Agency in respect of specific examples of facilities. These efforts were to be calculated in such a way that the significant amount of material unaccounted for, to be detected on a timely basis by the Agency, would be about four times that to be detected by Euratom. The clear consequence of this rule was that Agency activities should be very substantially lower than those performed by the Euratom inspectorate, and also than those performed by the Agency in third States;
- the Agency inspections are to be carried out simultaneously with the inspection activities of the Community, while certain of the Euratom inspections are being performed;
- the Agency inspections are to be performed, as a general rule, through the observation of Euratom inspections.

10. These provisions do not however mean that the Agency should apply its safeguards only indirectly, by means of verification of the effectiveness of Euratom safeguards. The Agreement provides for independent safeguarding measures by the Agency, and for inspection activities carried out otherwise than through observation of Euratom inspectors, whenever this exception to the observation principle is foreseen in the

Subsidiary Arrangements, or in exceptional circumstances. The Verification Agreement has thus resulted in a situation in which the Community is the most effectively safeguarded area in the world, because of the concurrent operation of two multinational safeguarding systems. However, the precautions taken in the Agreement, and referred to above, are intended to keep the burden for operators within acceptable limits, and to be consistent with a prudent management of the available resources. Furthermore, the independence of the Euratom safeguards system is unaffected; the relations between Euratom and the Agency are of a "horizontal" nature, as between two multinational inspectorates co-operating with each other.

C. Comparison with NPT Agreements concluded by the Agency with third States

11. The Agency has concluded a large number of NPT Agreements (74 such agreements were in force on 15 July 1982). They are, without exception, based on the Blue Book (1). Under these agreements, States are required to set up national systems of accounting for and control of nuclear materials, whereby operators carry out measurements, take inventories, keep records and send reports to the States. These reports must be transmitted in turn to the Agency. These agreements are not based on the assumption that the States concerned analyse these reports or check them through inspection or apply sanctions. There are thus radical differences between the Verification Agreement and the agreements concluded by the Agency with third States.

12. However, one of the NPT Agreements concluded by the Agency constitutes a special case. The Agreement between the Agency and Japan, signed on 4 March 1977 (INFCIRC 255), departs significantly from the Blue Book and presents less obvious differences from the Verification Agreement. Contrary to the standard NPT agreements:
 - Japan undertakes to operate a complete national safeguarding system, including inspections;
 - the main body of the Agreement is supplemented by a Protocol, which follows clearly the pattern of the Protocol to the Verification Agreement;
 - this Protocol includes a kind of "most-favoured-nation" clause, stating that the Agency shall accord to Japan a treatment "not less favourable than the treatment it accords to other States or a group of States, provided that the national system achieves and maintains a degree of functional independence and technical effectiveness equivalent to that of such States or group of States". Nevertheless, the terms of this Agreement are not identical to those of the Verification Agreements.

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(1) With certain States not signatory to the NPT, the Agency has concluded safeguards agreements of another type, based on Document INFCIRC 66 Rev. 2. Some are still in force (with 12 States at the end of 1981). Since these Agreements do not concern NNWS parties to the NPT, they cannot be compared with the Verification Agreement.

The main difference arises from the basic characters of the two systems of safeguards; because of its thoroughness, the Japanese system could be considered to have a technical effectiveness equivalent to that of Euratom. But it could not reach the same degree of functional independence as Euratom, since this is based on a transfer of powers by the Member States to the Community's supranational institutions.

V. Verification Agreements between Euratom, its NWS and the Agency

13. As a party to the NPT, and in order to demonstrate that its status as a Nuclear Weapon State (NWS) did not give it economic advantages, the United Kingdom, in 1967, made a voluntary offer to accept Agency safeguards; this resulted in a Verification Agreement with Euratom and the Agency, which was signed on 6 September 1976. A key difference, as compared with the Verification Agreement (NNWS), is that routine Agency inspections apply only to facilities designated from time to time for this purpose: all other safeguarding procedures (design information, accounting, reports, ad hoc and special inspections) apply, however, to all civil facilities.

Other differences are as follows:

- the Agreement applies to all nuclear materials in civil applications within facilities (material outside facilities being thus excluded);
- provision is made to enable the United Kingdom to withdraw nuclear materials from the scope of the Agreement for national security reasons;

14. Although not a party to the NPT, France also made a voluntary offer to accept Agency safeguards; and a Verification Agreement was signed with Euratom and the Agency on 27 July 1978. Its scope is limited to materials specifically designated by France. Otherwise, its provisions follow closely those of the United Kingdom Agreement.

VI. The implementation of the Verification Agreement (NNWS)

15. Much work remained to be done, following the signature of the Verification Agreement (NNWS), before it could be fully implemented.

Internally, the Community had to revise its safeguarding Regulations so as to be in a position to fulfil its obligations under the Agreement concerning basic technical characteristics, records and accounting reports (*). A new Regulation (3227/76) was enacted at the end of 1976. Because of the complex work entailed in the preparation of this Regulation (including the time required for the Council to approve it), the Verification Agreement did not enter into force until 21 February 1977.

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(*) The obligations concerning inspections are directly implemented by the Commission on the basis of Article 81 of the Euratom Treaty.

Externally, the Community had to negotiate with the Agency the specific parts of the Subsidiary Arrangements, namely the Facility Attachments, one for each facility on the territories of the Member States concerned. The Commission had also to draw up internal acts for each facility ("Particular Safeguarding Provisions") to give effect to its international commitments deriving from the Facility Attachments.

16. Following the entry into force of the Verification Agreement, but prior to negotiation of the Facility Attachments, the Agency encountered problems unforeseen at the time of negotiation of the Agreement.

As indicated above, the general part of the Subsidiary Arrangements includes a section on the Rules and Methods for the calculation of inspection efforts, as well as specific examples of their application. The Facility Attachments were to be drawn up on this basis.

However certain technical assumptions referred to in these examples were not confirmed in practice (1).

17. At the same time, an important political development supervened. Following the explosion by India of a nuclear device in 1974, the Agency's Standing Advisory Group on Safeguards Implementation (SAGSI) considered quantification of the general wording of paragraph 28 of the Blue Book (2), which refers to "timely detection of significant quantities". It made recommendations to the Agency for "detection goals" of general application, corresponding approximately to the quantities of materials needed to produce one nuclear weapon, and to the conversion times from various chemical forms into weapons usable form. These detection goals were presented to, and noted by, the Agency's Board of Governors. Expressed in absolute terms, without relation to the size or type of plant, these goals of general application are translated by the Agency using certain internal criteria, into specific "inspection goals" for individual plants. These plant-specific goals largely determine the form and intensity of the application of Agency safeguards as defined in the Facility Attachments.
18. Finally, following the Agency/Japan Agreement, it was felt by the Agency that the way in which the Verification Agreement would be implemented would set a precedent, not only for the Japanese Agreement itself, but also for any agreements with other States which might follow the Japanese example and establish advanced national safeguards systems.
19. These three developments led the Agency to press Euratom, during negotiation of the Facility Attachments, to accept the following guidelines :

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(1) In particular, it has not yet proved possible, for technical reasons, to put permanent seals on light-water reactor assemblies or to install sealed storage boxes for in-input samples in reprocessing plants.

(2) which corresponds to Article 28 of the Verification Agreement.

- (a) the Agency effort should be greater, in particular in the sensitive plants, than that envisaged at the time of negotiation of the Agreement;
- (b) inspection activities to be carried out otherwise than through observation should be wider than those previously thought;
- (c) Agency inspectors should use, to a large extent, Agency surveillance and containment devices (eg, cameras, seals).

The Community, while refusing to consider any amendment to the text of the Agreement or its Protocol, or any move which could jeopardise the independence and integrity of the Euratom safeguards system, reaffirmed its support for the effectiveness of Agency safeguards and declared itself ready to discuss practical solutions to the problems raised by the Agency.

20. The Community position took account in particular of the fact that the Verification Agreement does not specify the Agency inspection effort in absolute terms. It clearly indicates that it should be significantly lower than the effort required under Agency agreements with other third States, and also lower than the Euratom effort. But its actual determination was left to the Subsidiary Arrangements. Moreover, the provisions concerning inspection efforts concern the nuclear plants of the Community as a whole; they leave open the possibility for Agency inspection efforts to be substantially greater for particular types of facilities.

VII. The Euratom/Agency compromises on the implementation of the Verification Agreement

21. Between 1977 and 1980 a number of compromises were worked out. These took the form of special understandings supplementing, in practice, the general part of the Subsidiary Arrangements. The latter was not, however, amended because of the provisional nature of the compromises and the need to keep open the possibility of reverting later to the original approach.
22. An understanding concerning sensitive installations (reprocessing plants, installations for uranium enrichment, plants using significant quantities of plutonium or highly enriched uranium, as well as other facilities as mutually agreed upon in future (*)) was worked out in two stages, in September 1977 and in July 1978. The Community recognised the political case for fuller Agency inspections, while the Agency agreed to economise in inspection effort, and to reduce inconvenience for operators, by forming Joint Teams consisting of a number of inspectors present at the plant whenever it is in operation. It was provided that they would work closely together, and collect data in common, but make independent reports. It was agreed that Agency inspection effort in Joint Teams would in most cases be less than Euratom effort, and would normally be less than that in a third State.

The definition of a Joint Team includes in particular the following points:

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(*) None has been so agreed.

- all inspection activities in the plant are considered as a task to be performed by the Joint Team;
- the purpose of the Joint Team is to enable both inspectorates to achieve their safeguards objectives with a minimum of duplication and intrusion vis-à-vis operators;
- inspection activities will be undertaken in mutual support in such a way as to give each organisation all information required to draw its own independent conclusions;
- if an activity is considered as requiring more than one inspector, inspectors from both the Agency and Euratom will be present; if an activity can be carried out by a single inspector, it may be undertaken by any member of the team (one job/one man);
- as far as possible, there should be common working data and seals;
- sampling plans should be prepared jointly;
- no hierarchical structure was foreseen but requests to the operator would normally be channelled through a Euratom inspector.

This understanding was provisional and subject to review after a period of 2 to 3 years; during that period there should be an assessment at regular intervals of the possibility of reducing inspection effort, in the light of technical necessity. It was, however, later agreed that this compromise would remain in force until September 1983, pending a final decision in the light of experience.

23. Another series of understandings relates to the problem of participation of the Agency in Euratom inspections other than those in installations subject to Joint Team operations (1).
24. As to light water reactors, an understanding was agreed in three stages. Its main points are as follows:
 - a detailed inspection performed by both authorities takes place approximately once a year, when the reactor core is open for recharging;
 - a "mid-term" inspection performed by both authorities takes place 6 months after the detailed inspection to check the surveillance equipment (to be discontinued when doubts about technical reliability of video recording system are reasonably removed);
 - Euratom inspectors will read sealed cameras respectively 3 and 9 months after the main inspection (2);

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(1) cf. Article 14(a) of the Protocol to the Verification Agreement stating that Agency inspectors should be present during certain of the Euratom inspections.

(2) A film is removed and taken to Luxembourg to be read by both inspectors.

- Agency inspectors could accompany Euratom inspectors during the said inspections on 50% of the visits selected on a random basis (1). This extra Agency inspection should be discontinued as soon as tamper-proof optical surveillance measures have been developed.

This understanding, like that on Joint Teams, is expressly provisional (until September 1983).

25. Another understanding, reached in March 1979, relates to low enriched uranium fuel fabrication plants. It provides that:
- for "large" plants, Euratom should inspect at intervals of between two weeks and one month, and the participation of the Agency should vary from 50% (two-weekly Euratom inspections) to 90% (one-monthly Euratom inspections);
 - for "small" plants, Euratom should inspect at intervals of between one and three months and the participation of the Agency should also vary from 50% to 90%;
 - inspections should be made less frequently as soon as equipment approved by both organisations makes this possible.
26. A further understanding relates to the question of observation (2). In March 1979 it was agreed that, for item-counting as well as for identification and examination of records, the Agency inspectors would observe, without repeating these operations, the items and records which were being checked by the Euratom inspector. However, where records have been examined in the absence of an Agency inspector, the latter may have access to these records. It was later specified that the Agency, in installations for which the inspection frequency is less than once per month, could verify (on a sampling basis for source documents, and in all cases for ledgers' examination) the part of the records previously examined by Euratom alone. For other installations, records examinations should be planned and carried out when both inspectorates are present.
27. Furthermore, in March 1979, two lists were drawn up concerning respectively the inspection activities to be carried out "otherwise than through observation" ("OTTO list") and those to be carried out "through observation" ("TO list").
28. At the same time, a procedural understanding was reached on the question of costs of safeguards to operators. Article 15 of the Verification Agreement provides, inter alia, that the Agency shall bear the cost of any additional measuring or sampling that its inspectors may request. In the view of the Community, the word "additional" refers to any extra measurements and samples the Agency may request, as opposed to those made or taken by the operator in furtherance of his own material accounting, or by Euratom in furtherance of its safeguards responsibilities. In the view of the Agency, however, "additional" refers only to actions by an operator which go beyond normal safeguards activities as specified in the Facility Attachments. Because it had proved impossible to settle the substance of the question, it was agreed that, pending definition of the legal position and of permanent arrangements, Facility Attachments would normally refer in general terms, to Article 15 of the Agreement.

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(1) The Agency may also perform on these occasions other operations: eg, to verify materials in store or to audit records.
(2) Cf. Article 14(b) of the Protocol to the Verification Agreement.

VIII. Current situation in the implementation of the Verification Agreement (NNWS)

29. It is barely three years since the last of the compromise understandings was reached. Nevertheless, and in spite of the complexity of the situation, a great deal of progress has been made in applying the Agreement. In all, 194 Facility Attachments have been finalised; 60 remain to be completed, of which most relate to installations handling very small quantities of nuclear material. All outstanding Facility Attachments should be finished by the end of 1983.

30. The outstanding Facility Attachments concern four categories of installations:

- new installations;
- facilities with special problems (eg, a mixed oxide fabrication plant; an on-load refuelled reactor);
- installations using advanced enrichment technology;
- waste-handling and treatment installations.

It should be noted that facilities for which no Attachment yet exists are nevertheless subject to "ad hoc" inspections, in accordance with Article 71(a) of the Verification Agreement.

31. Close co-ordination between the respective inspectorates has been achieved. Euratom establishes a six-month general programme for its inspections, enabling the Agency to choose those inspections at which it wishes to be present. Requests for changes in the programme are normally accepted by Euratom. Planning documents for individual inspections are sent to the Agency in advance. If the Agency has not been present at an inspection, Euratom subsequently provides it with a copy of the inspection report. At the end of each inspection, Euratom provides the Agency with a complete set of working papers.

32. It may therefore be concluded that the Verification Agreement is effectively operational. However, its operation has given rise to a number of problems: these have come to the Commission's attention, either through representations from Governments or economic operators of Member States, or through observation by its own inspectors. In the last twelve months, these problems have been examined with those concerned in the Community, and they are now being discussed with the Agency through appropriate channels. The important ones are raised in the High Level Liaison Committee (HLLC), a body operating at senior official level; it met three times in 1982 - a much more intense rhythm of meetings than heretofore. More detailed technical questions are looked at in the Lower Level Liaison Committee (LLLC), a similar body but meeting at the technical level. In addition to these two Committees, whose establishment was provided for in the Protocol, ad hoc meetings between officials of the two inspectorates are frequent.

33. A number of problems have been settled at one or another of the three levels, and are not therefore discussed in this report. However, the Commission thinks it desirable to inform the Council of the state of discussion with the Agency on the following outstanding issues:

- (1) Application of the observation principle.
- (2) Participation of Agency inspectors in Euratom inspections.
- (3) Application of the Joint Team compromise.
- (4) The taking into account by the Agency of the effectiveness of the Euratom safeguards system.
- (5) The burden of inspection effort in Member States resulting from the putting into force of the Verification Agreement.
- (6) The problem of costs.

34. As to observation, the arrangements made for the application of the general principle laid down in Article 14(b) of the Protocol are in general respected, although in some cases they lead to unnecessary full repetition of records checks. Moreover, the Commission has noted that Agency inspectors rather frequently consider it necessary to replace the observation of the activities carried out by the Euratom inspectors by independent actions (eg, they use instruments without prior consultation with Euratom). Discussions have taken place in HLLC about these matters; it has been agreed that LLLC should look at them, case by case, and report back.
35. As to participation of Agency inspectors in Euratom inspections, the compromises on light water reactors and on low enriched uranium fuel fabrication plants have worked satisfactorily. For the former, it has not been possible so far to envisage a reduction in the frequency of Agency inspections, because technical equipment, such as video systems, is not yet sufficiently reliable. But the Commission is closely following technological developments with a view to taking the necessary steps in due course.
36. As for Joint Teams, in a number of facilities it has been possible to achieve, as contemplated by the relevant understanding, their basic aim of allowing both organisations to draw their independent conclusions through mutual support with minimum intrusion and duplication. However, in a number of other installations, difficulties have arisen, inter alia on the following points:
- use of a common set of working data and instruments;
 - the one-job-one-man approach;
 - common detailed inspection work-programme;
 - rules on communication of inspectors' findings to the operators.
- Discussions have taken place in HLLC. Some guidelines have already been given. LLLC has been instructed to study these matters in detail case by case.
37. As to the taking into account by the Agency of the effectiveness of the Euratom safeguards system, which constitutes an obligation under the Verification Agreement, the Agency, in order to be able to consider the system, in the light of Article 32 of the Agreement, has requested more information on how Euratom safeguards work. This information is progressively being supplied. When the process is complete, the two organisations will consider the operational consequences to be drawn.

- 38. As to the burden of the Agency's inspection effort under the Verification Agreement, following representations by certain Member States that this might be excessive taking into account the Agency's inspection effort in third countries, the Commission has requested the Agency to provide relevant information. This is progressively being done; when the process is complete, the Commission will be able to form a judgment on this matter.
- 39. As to costs, although certain specific difficulties which arose in one installation have now been solved, it is necessary, in the light of experience, to arrive at an agreed interpretation of Article 15 of the Agreement. The Commission will take this matter up with the Agency. The Commission has also embarked on a general study of safeguards costs in the Community.

IX. Current situation in the implementation of the Verification Agreement concerning nuclear-weapon Member States

- 40. The United Kingdom Verification Agreement has been in force since August 1978. Two facilities were designated to date by the Agency for routine inspections. No significant problems have been encountered in the implementation of the Agreement, apart from the general problems related to Joint Teams (see paragraph 36).
- 41. The French Verification Agreement entered into force in September 1981. However, as the Subsidiary Arrangements are only now being negotiated, no experience on the implementation of the Agreement can, as yet, be reported.

X. Outlook

- 42. Implementation of the Verification Agreements must be a continuing process. In an initial phase, Euratom was confronted with the double task of adjusting its own safeguarding system to the requirements of the Verification Agreements, and of concluding Facility Attachments for each installation concerned in the Community. The former process has been completed, and the latter soon will be. A phase of consolidation and development has now begun.
- 43. During discussion of the questions referred to in paragraph 33 above, the Commission has reminded the Agency that the various compromise understandings all have a provisional character, and that those which relate to Joint Team operations and to light water reactors are specifically subject to review by the Council in September 1983. The Commission has also had in mind that the Rules and Methods laid down by the Subsidiary Arrangements (general part) are subject to review from time to time.
- 44. As regards the understandings to be reviewed next September, the Commission will submit to the Council, before the end of next June, specific and concrete suggestions concerning their future.

As to the other understandings, as well as to the problems which have arisen in the implementation of the Agreement, the Commission will report to the Council in due course.

On all these matters, the Commission's thinking will of course be influenced by the development of the ongoing discussions with the Agency. These discussions must be seen in a broad international context. The effective maintenance of the Agency's safeguards system is very important for the development of international trade in nuclear materials, which is a major Community interest. In recent years, the Agency has faced substantial difficulties. It is understandable that it should consider very carefully the implications, for its safeguards system as a whole, of the specific arrangements it makes with the Community. But it is also necessary that, in accordance with the Verification Agreement, it should find ways and means of taking into account, in applying safeguards in the Community, of the effectiveness of the Euratom safeguards system, thus avoiding unnecessary duplication.

45. Clearly, the problems of application of the Verification Agreements do not affect in any way the performance by Euratom of its other safeguards tasks, namely the following:

- (a) verification of specific intended civil uses, as declared by each operator;
- (b) application of certain safeguards in the fuel cycle going beyond those of the Agency system (mining activities, ore concentration, etc.);
- (c) respect of international commitments entered into by the Community going beyond a peaceful use pledge (arrangements for retransfers, conditions of use, etc.);
- (d) respect of provisions of the Treaty relating to supply.

The third task implies that, for the Agreements with main supplier States (US, Canada, Australia), Euratom must be in a position to follow continuously, throughout the Community, nuclear materials coming from these States.

46. Finally, it should be noted that relations between Euratom and the Agency cover matters which go far beyond the application of the Verification Agreements.

In the field of research and development of safeguards technology, the two authorities co-operate closely, under a specific agreement concluded in 1981. The Community conducts a major programme, drawn up after consultation with the Agency, to whom its results are made available. (This programme is in addition to the national programmes of certain Member States.) The Commission has also been participating actively, along with the Agency and others concerned, in the hexapartite group, which is developing an approach to the problem of safeguarding centrifuge enrichment plants. The Commission believes that, because of its rôle as one of the two multinational safeguarding authorities, and because of its extensive co-operation with the Agency both on operations and on R & D, Euratom could make a substantial contribution to the Agency's Standing Advisory Group on Safeguards Implementation (SAGSI): it has expressed this view to the Agency's Director-General.

The General Co-operation Agreement concluded by Euratom and the Agency in 1976 provides a framework for a wide range of other co-operative activities. These include Commission participation in the Agency's Committee on Assurances of Supply (of nuclear materials), and in its group of experts on International Plutonium Storage. Technical co-operation has also been developing for many years in areas of common interest, notably nuclear safety, waste management, radiological protection, radio-isotopes, training of nuclear specialists, and nuclear fusion.

XI. Follow-up

47. The Commission invites the Council to consider the present report. It also calls upon the Member States to express their views on the different points raised therein.

The views expressed will be of value to the Commission in its further work in this whole field.

The Commission further suggests that the report should be sent to Member States Representatives to the Agency, requesting them to bear it in mind in the framework of Community coordination, in particular in view of the forthcoming session of the Board of Governors of 22 February 1983. This session will discuss, inter alia, the current status of the Agency's safeguards and the possibilities of improving the system.