

S/AE Mr. Farley

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Vienna, Austria
February 19, 1960

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Dear John:

I enclose for your information a copy of a memorandum from Dr. Brady, summarizing the work of the Randers Special Working Group of Expert Representatives on Safeguards, and a copy of a memorandum from Dr. McClelland reporting on a conversation with Zamyatin at a dinner party earlier this week which I think is somewhat relevant to Brady's report.

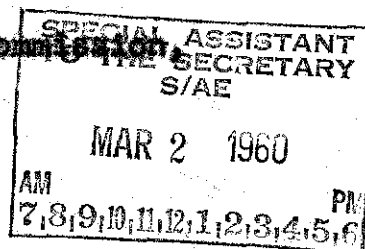
I have reached the following conclusions:

1. Dr. Randers' performance as Chairman of the ad hoc committee was both impartial and skillful, and his own contributions to the work of the committee were very helpful, if not indeed the dominant factor in the formulation of the committee's work. Based upon a luncheon discussion with Dr. Randers yesterday, I am hopeful that he will give strong support to our efforts to obtain provisional approval of both Annex I (slightly revised) and Annex II in the April meeting of the Board of Governors, and if he does support us unequivocally, our task in winning the votes of some of the wavering Governors will be much easier.

2. The Soviets have shown no willingness to really collaborate in preparing a revised document that both the US and the USSR could support in the Board of Governors. On the contrary, they have taken the implacable line that safeguards are essentially unnecessary and unworkable and in any event they should be applied only on a case-by-case basis. They opposed the designation of any quantitative limits with respect to the attachment of safeguards, and they opposed any designation of numbers in respect to frequencies of inspection and reports.

Mr. John A. Hall,
Assistant General Manager for
International Activities,
United States Atomic Energy Commission,
Washington 25, D. C.

cc: Mr. Farley
Mr. Wilson

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The Soviet position in the ad hoc committee appears to be in complete harmony with the views expressed by Zamyatin to Dr. McClelland. In brief, Soviet actions and attitudes revealed this week to our Mission do not bear out the hopeful premise of Professor Emelyanov that we might reach agreement on a safeguards document which his government and our government could openly support. I am therefore more and more inclined to take the dismal view that the Soviet position on safeguards is currently being determined by Novikov rather than by Emelyanov, and that unless some way can be found to resolve our differences at a higher level, we will probably encounter strong opposition instead of support in the Board of Governors, and even more politically violent opposition when the whole subject of safeguards is discussed in the next General Conference.

3. Soviet antagonisms to Sterling Cole and Roger Smith undoubtedly are a factor in the thinking of Emelyanov and Zamyatin, but I doubt if they are significant in Novikov's assessment of what is best politically for the Soviet Union in respect to safeguards.

4. Indian opposition to safeguards in their entirety can surely be expected in the Board of Governors and in the forthcoming General Conference. Ambassador Lall will be a persuasive speaker whose views will carry considerable weight in the Afro-Asian bloc. Fahmy, of course, will express the same views, less persuasively but far more extensively. The Governor from Ceylon will probably say little but is likely to follow the lead of Arthur Lall.

5. The contribution by the Brazilian representative in the Randers committee was negligible; sometimes his vote supported us and sometimes it tipped the scales against us. I am inclined to believe that there is very little belief in or support of safeguards, either in the Brazilian AEC or in their Foreign Office, and this disturbs me because Brazil, as the so-called leading Latin American atomic state should be an outspoken supporter of our position. In my opinion it is not too early to start plans on ways and means of developing firm support from the Brazilians from here on out. I think both Venezuela and Peru will support us. Mexico's position is uncertain, and for this reason it is particularly important to have Brazil on our side.

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6. I sense a cooling off on the part of both Michaels and Werahof, due mainly I suspect to a feeling of pique because in their eyes the Paris meeting between Rabi and Knelyanov took the play out of their hands. The designation of Randers as Chairman of the ad hoc drafting committee probably appeared to Michaels as a slight (I think he aspired to the chairmanship). Even if my surmises are not wholly correct, I think that we should do everything possible, both from Washington and here in Vienna, to assure that these two important Governors continue as heretofore their vigorous and effective defense of safeguards in the Board. To this end, I have requested the AEC to amend Miller Hudson's travel orders so that he may stop off in Geneva next week to spend a few hours in briefing Werahof on the work of the Randers ad hoc committee.

Sincerely yours,

Paul F. Foster

Copies to:

Department of State
Mr. Wilcox, Mr. Farley

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Paul F. Foster

February 24, 1960

Miller N. Hudson, Edward L. Brady and Clyde L. McClelland

IAEA Working Group of Expert Representatives on Safeguards

I. GENERAL APPRAISAL

In the January meeting of the Board of Governors it was decided that a working group of technical representatives of seven member states should attempt to prepare a coherent, simplified version of the two safeguards documents that had been discussed by the Board. US agreement to this procedure was based primarily on impressions obtained during private conversations with V. S. EMEL'YANOV (the Governor from the USSR) and with L. M. ZAMYATIN (the USSR resident representative in Vienna) who had both indicated that their government might be prepared not to oppose, and even to support, a simplified safeguards document which they were satisfied made good technical sense. It was recognized that the procedure represented a gamble and could provide the Soviets an opportunity to delay effective action on the document and weaken its contents. The gamble has not paid off. The Soviet representative to the working group maintained the usual political attitude throughout -- that a general system of safeguards could not be established and that safeguards in each case must be determined by the Board on the basis of very broad considerations.

In spite of this attitude, in which the Soviet representative was supported, as expected, by the Czech and partially by the Indian representatives, the document finally obtained reflects definite progress toward achievement of some basic US objectives. However, success was also achieved by the Soviets in obtaining the adoption of several provisions calling for Board consideration on a case by case basis.

Definite progress was achieved in securing committee recognition of the difficulties associated with retroactive application of safeguards. The elimination of this concept from the paper resulted from the adoption of a limit on quantities of materials supplied below which safeguards would be neither attached nor applied to source material and produced

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material. A second and higher limit was specified below which nominal safeguards would be applied. Amount of source and special fissionable material larger than this second limit would be subject to full safeguards. With these limits specified for nominal application to safeguards, the previous US nominal safeguards provisions were considered adequately covered and were eliminated from the document. Success was achieved in the incorporation into the document of a basic principle advanced by the US for the determination of inspection frequencies. It was not possible to reach agreement on the value for the cumulative uncertainty upon which the calculation of inspection frequency should be based; however, a majority of five representatives agreed that it was possible in principle to establish such a number on the basis of technical considerations and four representatives agreed that the number could be the value recommended by the US.

The document produced by the working group represents a return to ^{early} US positions on quantities of materials and incorporates several important recent US suggestions. Although these gains may be rejected during subsequent discussions in the Board of Governors, it is believed that the incorporation into the document of these positions provides support that will prevent the eventual positions adopted by the Board from deviating as far as might be otherwise feared. It is recognized that this may prolong Board discussions. However, in view of the Soviet attitudes it seems clear that extensive Board discussion is probably unavoidable.

II. ATTITUDES OF REPRESENTATIVES

The participation and contribution of each of the representatives on the technical working group was very much that which could have been predicted beforehand. The following comments summarize the participation of each representative:

1. BRAZIL (Andrade) -- The representative was very quiet and made perhaps half a dozen statements during the week of the meetings. On the basic issue of quantities of material attracting safeguards, he voted with the U. S. position but

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entered a reservation to be included in the Chairman's transmittal letter stating that he knew of no technical reason why the quantities should not be greater. On the proposal in the document to exempt from safeguards reactors up to three thermal megawatts, he cast a vote opposing the U. S. position that the reactor exemptions under nominal safeguards were adequate. Throughout the discussions he supported most of the Soviet proposals aimed toward a case by case approach.

2. CZECHOSLOVAKIA (Simone) -- It was apparent that political considerations governed the basic actions of the Czech representative. On a number of occasions, technical arguments advanced to support US positions seemed to influence the Czech representative but on all decisions he made it quite clear that he supported the USSR position. On several occasions, he stated merely that he wished to be associated with the remarks just made by the USSR speakers. In his own statements he was not as illogical as the Soviets.
3. FRANCE (Pintelstein) -- The French representative seemed rather indifferent about the contents of the safeguards document but supported the US position uniformly. On a number of occasions he attempted to formulate compromise wording supporting the US position, while at the same time seeking to minimize the political objections of other delegates. It is believed that his support for the US position on the frequency formula influenced significantly the position of the Indian representative.
4. INDIA (Sethna and Shunker) -- Preliminary discussions with the Indian Representative before the meeting started had aroused fears that he would introduce major obstructions based on political considerations. These obstructions

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largely did not materialize. As could be expected, he objected to the attachment of safeguards to source material and endorsed very strict safeguards for highly enriched material. In general, he supported the Soviet case by case approach. On the inspection frequency issue, he proposed a solution which included frequencies acceptable to the US. After support of his proposal by the US and opposition by the USSR, the proposal was withdrawn in favor of the qualified US suggestions.

5. USSR (Lytkin and Falenych) -- Russian participation in the working group proceedings seemed completely politically motivated. The representatives presented no technical arguments and refrained from participation in the few technical discussions that did arise. Lytkin said that he is chief engineer at the 5 MW USSR power station, and Falenych is a political officer on the staff of the resident representative to the Agency.
6. U.K. (Wardrop and Frost) -- Cooperation and support of the well-prepared UK delegation was an essential factor in the relative success achieved in incorporating US views in the document.
7. Chairman of the Working Group (Gunnar Randers of Norway) -- In his handling of discussions and his efforts to secure agreement on the material to be included in the document, Chairman Randers was objective and effective. He succeeded in diverting the initial attempts of some of the representatives to introduce politically phrased arguments into the discussions and by his insistence on adherence to a text once it had been agreed upon partially prevented recurrence of arguments already exhaustively presented. US Working Group members found no basis whatever for criticism of his handling of this meeting.

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8. Observers.

The Chairman of the Board of Governors (Sole) attended every session. When called upon on one occasion for an opinion on a procedural point, he seized the opportunity to refer to quantities of 10 tonnes of uranium, 20 tonnes of depleted uranium, and 20 tonnes of thorium as those which might attract safeguards. These figures had not previously been mentioned by any Working Group member. In a private conversation he indicated that he believed the document being produced would have "rough going" in the Board of Governors.

All sessions were also attended by Mr. Sashichiro Matsui of the permanent Japanese Mission to the Agency and Dr. Ryokichi Sagane who was in Vienna as a consultant to the Agency. In private conversations these men indicated that any safeguards document would be strongly attacked in Japan by at least one of the two factions fighting for control of atomic energy affairs in their country and quite possibly by both of these factions. They said that there is great confusion in atomic energy affairs in Japan and they could not predict the result of any action either on acceptance of safeguards or on anything else. Matsui and Sagane placed great importance on the implementation of the safeguards procedures, saying that the inspectors must be the best qualified men in the world, must have the proper personality, must have high integrity, and should be the highest paid employees of the Agency.

The representatives of Mexico (Araoz) and the UAR (Fahmy or Sherif) attended all but one or two of the sessions but made no effort to participate in any of the discussions.

Representatives of the Missions from South Africa, Canada, and Poland attended occasionally.

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III. REVIEW OF WORKING GROUP REPORT

The Working Group consideration of the major points of substance is summarized in the following paragraphs under the topical headings of the final document:

1. Introduction.

The Introduction is essentially that contained in GOV/INF/36.

2. Definitions.

All reference to the diversion of information has been deleted, not only from the definition section, but also from subsequent parts of the document. A determined but unsuccessful effort was made by the representative of the USSR to restrict the definition of principal nuclear facility to reactor facilities alone.

In GOV/COM.12/3, Randers proposed the terms "PN material" and "PN facility" to avoid the psychological objections to the term "externally safeguarded" previously used. (The initials PN stand for "peaceful nuclear".) This proposal was adopted by the committee. The USSR insisted that the definition providing for inclusion in this category of material which a state wishes of its own accord to have included should read "...provided the state or states concerned voluntarily send the Agency notification thereof."

3. General Principles of Agency Safeguards.

The principles section of the Working Group report is based upon GOV/INF/36. The pertinent contents of that document have been shortened and redrafted, but it is believed that no essential substance has been lost. The principal differences of substance in the present document, as compared to GOV/INF/36, is that it provides for application of safeguards to facilities to which safeguards are not attached while such facilities are handling materials to which safeguards are attached and applied. It is believed that this change in the useage of the terms attachment and application will not lead to difficulty in the implementation of the safeguards procedures but may introduce some confusion

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in the minds of members of the Board of Governors.

4. Attachment and Termination of Agency Safeguards.

a. Attachment to facilities, equipment and non-nuclear material. Over US and UK objections, a provision was adopted which would exempt from the attachment of safeguards reactors with a nominal power of less than three thermal megawatts, provided that the total nominal power of reactors thus exempted in any state did not exceed six thermal megawatts. This section also incorporates from GOV/INF/36 the principle that safeguards may be attached to equipment and non-nuclear material under certain circumstances.

b. Attachment to nuclear materials. In the discussion of this section the first point to be considered was the consequential retroactive attachment of safeguards to produced fissile material when large quantities of source material are exempted from the attachment of safeguards. After extensive discussion, retroactive application of safeguards to produced fissile material was abandoned and the following formula was adopted:

In each of the following cases Agency safeguards will be attached to nuclear material supplied by the Agency and to special fissionable material produced in or by the use of such material, if the quantity of such PN material in the State exceeds:

- (a) 2 metric tonnes in the case of uranium with a uranium-235 content between 0.5 and 1.0 per cent, or for any portion thereof the equivalent amount of more highly enriched uranium, plutonium or uranium-233;
- (b) 4 metric tonnes in the case of depleted uranium with a uranium-235 content of less than 0.5 per cent;
- (c) 4 metric tonnes in the case of thorium.

However, in each of the following cases Agency safeguards will be applied in a nominal manner to nuclear material supplied by the Agency if the quantity of such PN material in the State lies between the following amounts:

- (d) 2 to 10 metric tonnes in the case of uranium with a uranium-235 content between 0.5 and 1.0

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per cent, or for any portion thereof the equivalent amount of more highly enriched uranium, plutonium or uranium-233;

- (e) 4 to 10 metric tonnes in the case of depleted uranium with a uranium-235 content of less than 0.5 per cent;
- (f) 4 to 10 metric tonnes in the case of thorium.

Safeguards will be applied fully to all special fissionable material produced in or by the use of material supplied by the Agency fulfilling the conditions of sub-paragraphs (d), (e) and (f) above.

This solution was accepted by 4-3 vote. In addition, Randers' proposal for safeguards on fissile material produced in a reactor was accepted. This proposal specifies that if Agency assistance permits a reactor to operate at a power significantly greater than that at which it could operate without Agency assistance, all fissile material produced in that reactor would have safeguards attached. In adopting this proposal the Working Group specified that the appropriate assisted power level attracting safeguards to produced material should be 150% of the unassisted power level.

c. Termination or suspension of Agency Safeguards. Due largely to the adamant USSR position, the provision for the termination of safeguards upon deposit of equivalent material and conditions upon suspension of safeguards during temporary transfers for testing and processing were eliminated. The Board must, however, approve the agreement between the two member states concerned. In this connection the USSR and Czech Delegations evidenced very great concern in securing words which would clearly preclude any Agency safeguards activity in the second State once the Board had agreed to a suspension of safeguards which transferred to that State for processing, reprocessing or testing. The US resisted this step toward a case-by-case approach and succeeded in inserting a footnote indicating that it felt it desirable to specify the eliminated conditions as guidance for the Board.

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5. Application of Agency Safeguards.

The final Working Group document will retain the substance of all the significant points on application contained in GOV/463. Following the format of Sanders draft (GOV/COM.12/3) these sections are highly simplified general statements and do not include previous details.

The nominal safeguards provisions referred to in the discussions on the attachment of nuclear materials are contained in this section limited to the quantities previously noted. These provisions provides for yearly routine reports, no routine inspection, and special reports and inspections as required. Nominal safeguards are now restricted to smaller quantities of material than given in the proposal originally advanced by the US.

The US concept for determination of the frequency of routine inspections of reactor facilities was adopted with the favorable vote of five members of the committee. However, the value for the cumulative uncertainty in materials, which determines the inspection frequency, was left unspecified and a footnote added that the working group found it impossible from a technical point of view to agree on a definite figure. In the letter of transmittal to be submitted by the Chairman, representatives of all countries except the USSR and Czechoslovakia will support the US position that such a figure can be obtained on the basis of technical considerations and the UK, France, and India will support the US figure of 0.2 kilograms of pure fissionable material as a possible value.

The total effect of this paragraph is weakened somewhat by the inclusion in the report of a proposal advanced by India which states that the number and scope of inspections will take into account a number of considerations including, among others, the "state of industrialization" of a country and the possession by the State or States of an irradiated fuel reprocessing facility. In an effort to obtain concurrence of India and Brazil on the quantitative formulation of the frequency formula, this concession to a case-by-case approach was not resisted strongly by the US. Discussion in the committee indicated that, in any event, the vote on the inclusion of these provisions would have been 5-2 against the US position.

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MEMORANDUM OF CONVERSATION

Date: February 18, 1960

PARTICIPANTS: L. M. ZAMYATIN, USSR Resident
Representative to the IAEA

Clyde L. McCLELLAND, Scientific
Adviser, U. S. Mission, IAEA

SUBJECT: Views of USSR Resident Representative
on the IAEA and Agency Safeguards

At a dinner party last night, the reporting officer remarked to Mr. Zamyatin that the latter had not yet attended any meetings of the Special Working Group of Expert Representatives on Safeguards, which was now in session under the Chairmanship of Dr. Gunnar Randers of Norway. Mr. Zamyatin replied with considerable force that he was neither interested nor concerned with IAEA safeguards which were completely useless and unnecessary.

As the reporting officer reviewed the United States position on this question Zamyatin became increasingly emphatic and emotional. It appeared that his lack of interest in Agency safeguards was directly related to a lack of confidence in the Agency itself which he forcefully termed an "American Agency". Zamyatin said "I'll tell you why its an American Agency; you insisted that an American be Director General." He recalled that many delegates regretted this US position and said that he had personally pleaded with Admiral Strauss not to force an American on the Agency as Director General but rather to support a neutral for that position.

Other individuals, drawn by Mr. Zamyatin's impassioned remarks, now entered the discussion. In response to questions on the present Soviet position, he stated that their position remained the same -- the next Director General should be a neutral. He gave as examples of neutral states, Austria, Switzerland and India (in that order).

In response to a question asked by Dr. Seligman in the presence of Dr. Randers, Zamyatin reluctantly conceded that Norway might also be considered neutral.

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