1. The biggest NPT negotiation issue that had not been resolved by 1966 by the Soviet and U.S. NPT negotiators and their governments was how to verify the NPT obligation not to manufacture nuclear weapons. The *notransfer* obligation proposed for the nuclear-weapon state NPT parties, and the *no-receipt* obligation for the nuclear-weapon-state NPT parties, were thought to be very difficult to verify. If the NPT had been in effect in 1964 before China's first test, how could international inspectors verify that the Soviet Union had not given nuclear-weapon designs or HEU or Pu for nuclear weapons to China before that test? How could the secret transfer of weapon-useable information or materials from one country to another be inspected?

2. By 1964, the IAEA had been in existence for several years, and a great deal of international attention was focused on how it could inspect nuclear reactors that it was given permission to inspect by national governments where the reactors were located. Under the IAEA Statute (the treaty creating it), the purpose of inspections was to assure that the reactors and other nuclear projects for peaceful purposes were indeed used for peaceful purposes. The IAEA had been created as a result of President Eisenhower's "Atoms for Peace" proposal of 1953 to the UN General Assembly.

3.As a result of "Atoms for Peace" plan, the United States began providing research reactors with highly enriched uranium (HEU) to many countries around the world, not just to its own allies. The Soviet Union and France followed suit. The U.S. received commitments from the countries to which it supplied research reactors that U.S. inspectors could come periodically to inspect the reactors to assure, among other things, that they were being used for peaceful purposes—that, for example, the HEU had not been removed from the reactors to make nuclear weapons. Though Soviet representatives had expressed opposition to Eisenhower's plan on grounds that spreading HEU research reactors around the world could result in spreading information and materials for making nuclear weapons around the world, the United States went ahead with the Eisenhower plan and research reactors were provided to many countries. The Soviet Union was unable to stop the Eisenhower plan, and chose then to follow suit by providing research reactors to some of its friends and allies, including several Warsaw Pact members, Iraq and North Korea. France also offered research reactors to other countries.

4. Further U.S.-Soviet negotiations resulted, including other participants, to assure that these reactors, nuclear materials, and other nuclear activities in non-nuclear-weapon countries would be used only for peaceful purposes. These negotiations produced IAEA in 1958. After it was created, new negotiations prescribed the inspections that IAEA inspectors would make periodically at sites where the reactors "for peaceful purposes" were operating. The purpose of these "safeguards inspections" was to assure that HEU and other nuclear material and facilities provided by the United States, the Soviet Union and France for the research were not used to make nuclear weapons – as Iraq tried to do before the 1991Gulf War with HEU provided for its research reactors.

5. The American and Soviet governments and their NPT negotiators in Geneva knew about the IAEA and its inspectors. The IAEA safeguards system was the only international nuclear inspections system that both countries had participated in creating. The American officials and their European allies also knew about Euratom, the nuclear agency of the six Common Market countries of Western Europe. But the Common Market countries were not well represented in the Geneva negotiations because France under De Gaulle had refused to fill the French seat at the Geneva Conference; Britain was not yet a member of the Common Market; and other Common Market members such as Belgium, Germany, Luxembourg and the Netherlands were not members of the Geneva conference. Only Italy was both a member of the Common Market and of the Geneva Conference, and it had not been very active in Euratom. On the other hand, most of the members of the Geneva Conference were members of the world-wide IAEA. For all these reasons, it was not surprising that the first U.S.draft for an NPT verification provision mentioned the IAEA. 6. The U.S. Government had been in touch with Euratom members about the inspection/safeguards problem but had been unable to achieve any consensus among them on what an inspection provision should say. At that time, Belgium, Luxembourg and the Netherlands seemed to support the negotiation of an NPT even if it required some inspections of reactors in Euratom countries beyond those conducted by Euratom. Germany and Italy did not support the negotiation—indeed, they were doubtful about more than being inspected by non-Euratom IAEA inspectors (who might include Soviets working for the IAEA). Their doubts included whether they wanted to give up the right to acquire nuclear weapons someday. France, under de Gaulle, still remained aloof from the negotiations. The U.S. was unable to achieve any consensus among its allies on what kind of inspections should be required to verify compliance with the NPT.

7. As a result, when the United States submitted a U.S.draft NPT to the Geneva disarmament conference in August 1965, the safeguards provision was tentative and vague. Art. III in this draft said: "Each of the States Party to this Treaty undertakes to cooperate in facilitating the application of International Atomic Energy Agency *or equivalent* international safeguards on all peaceful nuclear activities."

8. In explaining this draft treaty to the Geneva Conference, the head of the U.S. delegation said: "Unlike other provisions of this draft, this article does not set forth precise or completely-formulated obligations; but it does clearly indicate a line of policy which all parties undertake to implement: namely, that they will help to bring about the application of such safeguards to their own peaceful nuclear activities and to those of other countries." He then pointed out that a "number of countries have begun to accept safeguards [he did not say whether IAEA or Euratom safeguards] on their own peaceful reactors. We hope this process can be expedited." Obviously, this was not a strong requirement of IAEA safeguards.

9. In November of that year(1965), the General Assembly adopted a resolution by a vote of 93 to 0 (with 5 abstentions) calling for an NPT which

would be "void of any loopholes," would embody "an acceptable balance of mutual responsibilities and obligations of the nuclear and non-nuclear Powers," would be a "step" toward achievement of "nuclear disarmament," and would contain "acceptable and workable provisions to ensure the effectiveness of the treaty." (UNGA Res. 2028, Nov. 19, 1965) It did not mention either IAEA or Euratom safeguards. The existence of a "global" safeguards agency (IAEA) and a regional safeguards agency (Euratom), each with its own territorial claims for inspections and each with its own safeguards inspectors, produced major difficulties and long delays in the negotiation of Article III, the safeguards obligation.

10. Among the Euratom countries, France had no interest in the NPT, and West Germany and Italy were doubtful. Belgium and the Netherlands were supportive. Luxembourg was not a player. At the time, moreover, important Euratom countries such as West Germany and Italy were opposed to being inspected by IAEA inspectors, some of whom could be Soviet nationals.

11. The Soviets insisted on IAEA inspection in all Euratom countries but France, which the Soviets accepted as a nuclear-weapon state and therefore not subject to inspection (because the Soviets refused inspections even on their own peaceful-use nuclear facilities). These sharp differences caused years of delay in the negotiation of Article III, and helped produce proposals to leave out inspection provisions altogether from some in the U.S. State Department who were concerned about U.S. relations with West Germany and Italy. However, ACDA's deputy director came up with the idea that, in Euratom countries, Euratom inspectors would be the basic inspectors (by analogy to a corporation's own bookkeepers being responsible for keeping its books), but that the IAEA inspectors (like outside certified public accountants) would "verify" that the Euratom system was adequate by checking the work of the Euratom inspectors periodically. When this idea was suggested informally to experts from Euratom countries, some opposed it and some expressed interest in it. They were unable to achieve a consensus. Without a consensus, Euratom continued its opposition to any IAEA inspectors at Euratom facilities, and the "logiam" on Article III

continued. At the same time, U.S. negotiations with Euratom countries by the U.S. continued in Euratom capitols and in Washington.

12. In Geneva where the NPT negotiations with the Soviets on Article III were mostly conducted, the American and Soviet delegations had each had instructions from their governments permitting agreement between the two countries on parts of the treaty (but not safeguards) by 1967. The "logjam" on safeguards continued. The Soviets, of course, wanted IAEA inspections in Euratom countries such as West Germany and Italy, but those two countries were opposed. The Washington idea for an IAEA inspectors' role as "certified public accountants" who periodically checked the conclusions of the Euratom "company" inspectors had not changed minds in West Germany and Italy. As a result, when, in 1966, the United States submitted a new NPT draft to the Geneva conference, it left out the inspection article altogether.

13. In Geneva, the U.S.-Soviet agreements on the other important provisions of an NPT and the lack of agreement on safeguards produced informal, "technical" talks between the two delegations. These were not at the ambassadorial level by the leaders of the delegations. Our instructions were not to budge from the inadequate U.S. positions on safeguards already described. The informal talks included two members of each delegation . (From the American delegation, there were two participants; I was the leader.) The concept of IAEA inspection of Euratom reactors was anathema to our Euratom allies. Yet the creation of the IAEA as, among other things, a world-wide inspection agency had been an American-led project.

14. I developed a new draft based upon 1) the safeguards language of the Latin American Nuclear-Weapon-Free-Zone Treaty (the negotiation of which the U.S. had followed closely); 2) IAEA documents dealing with the 1966 IAEA safeguards standards for agreements with countries accepting safeguards;
3) earlier American drafts for Article III that had been suggested by the United States to Euratom members though they had not produced a consensus within Euratom; 4) some of the ideas about certified public accountants and bookkeepers from Washington, and 5) a proposal made informally by Roland Timerbaev of the Soviet delegation that non-nuclear-weapon countries should

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be able to accept IAEA safeguards "either individually or together with other states." His idea was that Euratom members could accept IAEA safeguards together in an agreement between Euratom and the IAEA which permitted IAEA overview of Euratom inspectors, much like the earlier informal suggestion from ACDA's deputy director in Washington.

15. After checking with the head of the U.S. delegation, we presented our draft to two members of the Soviet delegation who had been assigned by their delegation leader to work with us. We could not check it with Washington first, because our instructions were not to go further on safeguards than our existing instructions because of the disagreements with Euratom countries. We and the members of the Soviet delegation had gotten to know each other in walks in the mountains near Geneva, and Roland Timerbaev and I had discussed informally the idea of finding a way to have cooperating IAEA and Euratom inspectors who, together, could satisfy Soviet and American officials as well as Euratom members. Eventually the working group came up with a draft Article III, a draft that was based on our rough draft with changes that the two Soviet participants wanted and we thought would probably be acceptable to Washington and most of our Euratom allies. Then we agreed that we would report this draft to Washington as a "Soviet delegation draft," and they would report it to Moscow as a "U.S. delegation draft." (Neither side had any authority to change their longstanding instructions which had produced the current deadlock.)

16. The two U.S. members of the informal talks reported to our delegation head, and then sent off reporting cables to Washington describing the "Soviet delegation draft." (Reporting cables of this kind went to many Washington officials including those opposed to any change in the U.S. position because of Euratom's position.) At the same time, our head of delegation, William C. Foster, reported directly to Secretary of State Rusk what actually had happened (that the draft represented the tentative agreement of both delegations but not their governments).

17. These informal U.S.-Soviet talks eventually produced the penultimate draft for Article III. Changes were made as a result of consideration

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of the text by all NATO members after Euratom members were unable to reach a consensus on this or any other text. The final text did not name Euratom but said that non-nuclear-weapon NPT members had to conclude agreements for safeguards with the IAEA, and that they could do so "either individually or together with other States..." [read "Euratom" which wasn't mentioned by name]. Thus, there could be direct negotiations between Euratom and the IAEA to decide what IAEA inspections Euratom members had to accept if they joined the NPT. Minor changes in this text finally produced the agreement between the Americans and the Soviets that was presented to the Geneva Conference on January 18, 1968.

18. U.S-Soviet agreement on an article governing "peaceful uses" of nuclear energy (NPT Art. IV) had been achieved earlier. The non-nuclearweapon states at the Geneva Conference and in a UN General Assembly resolution had insisted upon their "inalienable right...to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I and II...." This agreement is reflected in Article IV. Article IV also called for assistance to non-nuclearweapon NPT parties in exercising this right, assistance from the nuclear-weaponstate parties or other parties "in a position to do so." It said that states could "cooperate in contributing alone or together with other states" [alone or through the IAEA or Euratom] "to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear weapon States..." (Art. IV.2) Thus, without mentioning Euratom, it was given a role by the NPT in the treaty's implementation.

19. During the various phases of the negotiations, there appeared to be agreement that the NPT should not hamper full access to nuclear knowledge and technology for *peaceful uses*. For example, West German Foreign Minister Willy Brandt, who was primarily responsible for gaining his country's acceptance of the idea of joining an NPT, was insistent on this point. For Brandt and other West Europeans, the "inalienable right" described in the treaty included the right to enrich uranium or separate plutonium. At the time, only a few countries in the world were technologically advanced enough to do so. But, in Western Europe,

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there were nuclear facilities for both enrichment and reprocessing, and telling the Germans, for example, that they could not do either was out of the question if we wanted them to join the NPT.

20. Acceptance of the NPT by Euratom itself did not follow directly from acceptance by most Euratom members. Euratom itself had still not agreed to any text by the time the American and Soviet delegations reported the text to the UN General Assembly in the Spring of 1968. However, Euratom members (except for France) signed the NPT on July 1, 1968. Then they put off their ratification of the NPT until new NPT safeguards standards that they could accept had been worked out in negotiations at the IAEA during the early 1970s. This gave them sufficient bargaining leverage to protect Euratom's position in the negotiation of IAEA Information Circular 153, the safeguards standards for Article III of the NPT. Thus, they could simply refuse to ratify the NPT if their negotiations with the IAEA did not produce a satisfactory solution.

21. Thus was the most difficult NPT negotiation issue brought to a successful conclusion. After the NPT was signed in July 1968, the focus of negotiations on verification shifted from the NPT to the IAEA safeguards standards, what became INFICIR/153.

To write the above, I relied, more importantly than my memory of the negotiations, upon:

-- Documents on Disarmament, (US Arms Control and Disarmament Agency, 1965 and 1966).

--Declassified U.S. delegation memoranda, instruction and reporting cables,

ACDA and State Department memoranda, relating to the Geneva Art. III negotiations.

--George Bunn, "Arms Control by Committee: Managing Negotiations with the Russians," (Stanford University Press, 1992), Chaps. IV and V on the NPT (based largely on declassified government records and personal experience).

--Mohammed I. Shaker, "The Nuclear Non-Proliferation Treaty: Origin and Implementation 1959-1979," (Oceana Publications, 1980—based largely on public records of Geneva Disarmament Conference in which Shaker was a participant on the Egyptian delegations), Chap. VI, Sect. III.