International Custody Regime for Excess Separated Plutonium

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David Albright: Because most if not all of the speakers at today's conference are well known to you, I would like to depart from tradition and not make formal introductions. So let me simply convene our first panel by turning the floor over to Hal Bengelsdorf and Fred McGoldrick. I would ask that you give them your attention.

Harold Bengelsdorf: Good morning. I don't want to start the meeting with a standing ovation, but I want you to know that I do not plan on talking for very long. That should put all of you in a good mood. Instead, Fred will give the bulk of our presentation.

Simply put, Fred and I are recommending that the international community take a new, hard look at an old idea. Recognizing the situation that David Albright has just described, the question is: Would it be desirable to place, under temporary IAEA custody, stocks of separated plutonium that the states concerned judge to be in excess of their near-term needs, on the assumption that when their requirements to use the material are defined and concrete, they promptly get the material back?

Fred and I have authored an article, available here today, that outlines our idea. The article will be published in the March/April 2002 issue of the *Bulletin of the Atomic Scientists*, a journal that we are not normally associated with. It is our hope that this publication will give our idea broad exposure, and thus help add to the public debate on the idea.

This is a concept that we both have been thinking about for some time. Fred has had a long history of working on this, as have many of you here today. There is a long history here of looking at the idea of placing excess stocks of separated plutonium under IAEA custody. It is not our idea; it is an old idea.

The concept that the IAEA might be used as a temporary custodian of excess plutonium derives from article 12(a)(5) of the IAEA Statute itself, which I would argue gives the concept some international stature and standing. A number of attempts were made in the past to implement this idea. It came up in the early meetings of the London suppliers in the 1970s, but the group never came out with any collective agreed judgment on the subject. INFCE addressed the concept and, it is fair to say, expressed a positive interest, but there was no real follow-through. Afterwards, the IAEA conducted a two-year study on the idea to try to come up with a defined scheme for implementing article 12(a)(5), but the IAEA failed to reach a consensus, largely because of sharply differing views in the group on a number of issues, including how to determine that the material is excess, and the criteria for returning the material to national programs. More recently, I think that the IAEA Director General tried to revive the idea in the early 1990s.

Not withstanding the somewhat checkered history, in our judgment, given the continued presence of excess plutonium stocks that David has described—and the fact that there are going to be large inventories of unused material around for some period of time—we strongly believe that it would be in the collective interest of the international community to try to address the issue of establishing a temporary IAEA custodial role once again.

The objective of our proposal is to incrementally add to the transparency of the civil plutonium stocks that exist, to come up with another institutional device that further raises the political bar against proliferation, and add to existing reassurances that this material will not be misused, and instead will be actually used in civil nuclear programs or otherwise disposed of. Historically, I frankly think that past attempts to establish an IAEA custodial role failed because they were too grandiose in nature. In contrast, we are now proposing a pragmatic scheme that we hope will commend itself for on-going, serious consideration.

I want to emphasize that Fred and I are talking for only ourselves. We are not here as surrogates for any industrial corporation or national nuclear programs. This is an idea that we simply feel should be looked at because of our interest in fostering nonproliferation objectives.

Obviously, given the September 11 attacks, the major preoccupation now should be—appropriately—that separated plutonium and weapons-usable materials are well protected, and that the international physical protection regime is strengthened. But in our judgment, nonproliferation is a multi-faceted subject, and we also need to look at both new and longer range ideas as well. Moreover, physical security improvements largely address subnational threats; whereas what we are talking about are potential, incremental nonproliferation obligations on nation states.

I would now turn the floor over to Fred McGoldrick, who will describe our specific proposal in detail.

Fred McGoldrick: Thank you very much. I also want to thank ISIS for putting this together. ISIS is a very small organization that does a truly outstanding job, and they deserve a lot of credit for what they do.

Let me start by referring to the IAEA Statute. Article 12(a)(5) provides that the IAEA has the right "to require deposit with the Agency of any excess of any fissionable materials recovered or produced as a byproduct over what is needed … in order to prevent stockpiling of these materials." It goes further and says: "At the request of the member or members concerned, special fissionable materials so deposited with the Agency shall be returned promptly to the member or members concerned," provided that the material is used for peaceful purposes under continuing IAEA safeguards.

That article was drafted almost 50 years ago. It is not a self-executing article. What Hal and I have tried to do is propose a system that would have some tangible nonproliferation and arms control benefits, while at the same time would not present insuperable political or financial obstacles to its acceptance by states or industry. What we propose is a voluntary system in which a participating state would declare specific quantities of separated plutonium in various forms as temporarily excess to its needs, and agree to place those materials under temporary IAEA custody, until such materials can be used in a defined, civil nuclear activity or otherwise disposed of in a peaceful manner, which would include immobilization and geological disposal.

Our proposal is open to both non-nuclear weapon states, which could deposit their excess civil separated plutonium, as well as the nuclear weapon states, which could deposit excess military plutonium.

Under the proposed scheme, the IAEA Board of Governors would adopt a model agreement that would define the basic provisions of the international custodial regime. Each state desiring to participate would then conclude a separate bilateral custodial agreement with the IAEA, which would have to be approved by the Board. This is basically the same way that safeguards agreements work.

The regime would have the following specific features:

- The amount of plutonium to be declared excess would be determined solely by the participating state, but there would be a presumption that the material would be excess if it were not to be put to a peaceful use or otherwise disposed of within an agreed period of time;
- The title of the material would remain with the state or private entity;
- The material would not be moved out of the state to an international site, but would remain in storage under IAEA custody at national sites, such as reprocessing facilities or other locations where plutonium is normally located;
- The IAEA would retain custody of the excess plutonium until such time that the state on its own behalf, or on behalf of private entities under its jurisdiction, requested its release for a specified peaceful use;
- IAEA officials would provide a continuous presence at these storage sites as part of the Agency's normal safeguards or verification responsibilities, and would have legal custody of the materials while they remained at the site;
- While under the legal custody of the IAEA, the plutonium would be subject to IAEA verification arrangements or safeguards. However, the actual physical protection of the materials would remain the responsibility of the state in whose jurisdiction the plutonium is located;
- No state could remove the materials from IAEA custody until it submitted to the Agency a request for the release of a specified quantity. This request would be accompanied by an end-use certificate that included the following information and assurances:
    - There would have to be an assurance of peaceful, non-explosive use;
    - The plutonium would have to be subject to continuing IAEA safeguards or verification procedures;
    - The materials would remain under effective physical protection, in accordance with international standards;
    - A description of the quantity and composition of the materials to be released;
    - The approximate date of delivery, the timetable foreseen for utilization, and the destination and use—presumably fabrication into MOX fuel assemblies and prompt irradiation in a designated nuclear reactor, use in research, or immobilization and disposal.
- The release of the plutonium to the owner would, hopefully, be a fairly routine matter, based on the submission of the certificate-of-use to the IAEA. In the unlikely event that the IAEA Secretariat would have a question about the completeness or accuracy of a certificate-of-use, it would consult with the concerned state, and only if the two sides failed to reach an agreement would the matter go to the Board. The Board's decision on the matter would be based solely on the completeness and accuracy of the certificate-of-use;

- In the interest of transparency, states could agree to allow the IAEA to publish information concerning stocks of plutonium under the Agency's custody and the subsequent peaceful uses of plutonium released from custody.

That is the basic outline of the regime. But what are the benefits, and what are the costs? In our view, the international custodial idea would constitute a new, important legal and political barrier to diversion of this material to non-peaceful uses, since the unauthorized removal of the material would require the seizure of the material in defiance of international custodial officials at the site. The custodial authority of the IAEA would now exceed the inspection rights of classical IAEA safeguards.

This would have several benefits. First of all, it would help minimize the purely national stockpiling of plutonium, which should help to alleviate international concerns about the diversion of such material for nuclear explosives or military purposes. It would also strengthen the nonproliferation regime by requiring an authorization for the release of plutonium from custody. By affording the IAEA custody over the material pending a specified use, the regime would establish a new and significant legal and political barrier to diversion that goes beyond traditional safeguards and other international nonproliferation controls. It would increase transparency by requiring that all such materials be under international safeguards or verification. Even after the release from IAEA custody, these safeguards or verification measures would continue to apply. The custody regime would also be designed as a complement to, but not a replacement for, other nonproliferation regimes, such as the U.S.-Russian plutonium disposition agreement and the U.S.-Russian-IAEA trilateral verification initiative. Overall, it would be a meaningful nonproliferation and confidence building measure that would help states to manage their plutonium.

The costs of this proposal should be fairly minimal. They would be incremental to IAEA safeguards. If U.S. and Russian excess military plutonium stocks are placed under the custody regime, then the costs could be rather substantial. However, if these two countries were to begin their participation by submitting their excess plutonium that is already under safeguards or IAEA verification, then the initial costs should be quite small. As more U.S. and Russian material is brought under international verification, it too could be brought under the custodial regime.

Most of the excess plutonium in France and the UK is under Euratom safeguards, not under IAEA safeguards. If the costs of submitting this material to IAEA custody is seen as prohibitive by the French and the British, then they should be able to place their excess material under Euratom custody. Article 80 of the Euratom Treaty contains a provision similar to that found in the IAEA statute.

What are the selling points of our idea? First of all, it is important to say that Hal and I could have proposed a far more rigorous regime. But we felt that few states would join a far-reaching regime. Therefore, we tried to design a system that states could find acceptable and not too costly. Several features of the regime that we are proposing might be attractive to states with excess plutonium:

- It offers certain tangible nonproliferation and national security benefits, but in an incremental way;
- It requires neither radical changes in operations of facilities, nor major political or financial costs. Bear in mind that the responsibility for managing the storage facilities remains with the facility operator, and that the plutonium remains in the concerned country;
- The state would retain responsibility for physical protection and safety. We could have argued that the IAEA could take over these responsibilities, but that is an absolute non-starter;

- The decision to release the plutonium from custody would rarely be subject to debate by the IAEA Board, as release would be a fairly routine matter. There should therefore be a lot of confidence in the way the system works;

- Finally, the assurances and information that we propose be put in the end-use certificate are essentially the same as those contained in INFCIRC/549, the International Plutonium Management Guidelines. For all of the states that have already adopted these guidelines for their exports, they would now become the norm for their own domestic use.

That's the basic outline of the regime. We think it has some merit. As Hal said, we have not consulted with any government or industry representatives on this. So we have no idea if either would find it attractive. But we think that it is worth considering and hope that both states and industry would take a look at it.

Thank you.

David Albright: Thank you to both of you. We have some time for questions.

Question: Thank you. I think that you have presented a very interesting idea. In many ways, it is a natural extension of what the United States and Russia have done in declaring excess stocks. The idea behind that was to set an international standard or norm that other countries would follow, and your proposal provides a mechanism for doing so.

The questions I have are really for clarification. First, operationally, how would you envision this process as being different from traditional safeguards? The essence of my question is whether you are trying to shorten the lag time for which the IAEA could determine that material had been removed for unauthorized use. Second, did you consider, as part of your end-user statements, anything related to physical protection? Or is that something that you felt was beyond the pale?

Fred McGoldrick: Let me answer your second question first. One of the assurances that a state would have to submit on its certificate-of-use in order to retrieve the material would be an assurance that the material would be subject to physical protection measures in accordance with international standards. In addition, while the IAEA would have no responsibility for protecting the material while it was in custody, I would assume that the IAEA would not accept anything under its own custody unless that material were subject to such physical protection measures.

Regarding your first question, I would assume that the timeliness standards would remain the same, and that the safeguards and verification provisions would continue to apply to the state in question.

Question: Would you consider your proposal as a two-step process, the first step being the establishment of an international data exchange on the amounts and locations of all civil and excess military plutonium? It seems to me that if the United States were to take this issue seriously, as it has taken seriously some other issues post-September 11, then it could organize fairly quickly some sort of international data exchange to locate these types of materials. Subsequent to that, we would get to the IAEA implementation part of your proposal. It seems to me that getting the IAEA to do what you are suggesting would take another 40 years.

Harold Bengelsdorf: I see the point that you are making, but I would hope that the approach you are suggesting would not be viewed as a substitute for our idea, or would serve to derail it. In the first instance, you are essentially recommending an enhanced data exchange, which sounds virtuous on its face. But I

would be concerned if the balance of our idea favoring IAEA custody would evaporate. What is done with the idea we are proposing will be up to the international community, if it goes any place.

If anything is going to happen with this idea, and I have no illusions that it will be embraced over night, then there has to be a major step to transfer the legal custodial responsibility for some excess stocks to the IAEA for a temporary period. I recognize that that will be a significant political act.

Fred McGoldrick: Let me just add that I don't think that it would take 40 years to do this. I am probably as cynical about things as you are, because I spent about 30 years in the U.S. government. It does not need to take 40 years to implement our proposal. For example, we completed INFCIRC/153 in a couple of years. INFCIRC/549 was also completed within a few years. I don't see that we are talking about a 40-year timeframe to set up this kind of regime. It could be done in a few years, if there was a will to do it.

Harold Bengelsdorf: I agree with Fred. In my honest judgment, a regime along the lines we are suggesting could be negotiated relatively quickly. I think that something of this nature could be negotiated in Vienna in a year or two, if the political will was there. That's the big "if."

Question: May I follow up? There are other examples that show why this could take 40 years to negotiate. When you were in the government, the United States was to put its excess plutonium under IAEA safeguards, and it still has not done that. Neither has Russia.

Fred McGoldrick: Are there other questions?

Question: I also thought that the paper was interesting. It was a nice amalgam of different elements of the regimes that we have already—the voluntary offer, the plutonium guidelines, and the Trilateral Initiative—but maybe I missed something. It seems that the main thrust of your proposal was for the nuclear weapon states, because I did not see much value added for the non-nuclear weapon states.

Focusing on the nuclear weapon states, what I fail to see is how it is complementary to the Trilateral Initiative, which is not in place yet. The Trilateral Initiative seems to go beyond what you are proposing, in that it addresses the technical problems of safeguarding classified material, as well as the financial problems of funding such an effort. Maybe it is that I do not have the legal nuance, but I really did not see anything in this legal custodialship that was really new. The state still provides the location, funding for physical protection, funding for eventual use, and even liability if there is an accident. What if the state decides, somewhere down the line, that it just does not want the material—can it get rid of it? Will the IAEA take it? If there is an accident or environmental problem, does the IAEA have any legal responsibility for the material in its custody? So what is the value added over the things that are trying to be achieved in the Trilateral Initiative?

Fred McGoldrick: Well, I think that the Trilateral Initiative, as I understand it, is basically a safeguards regime in reduced form. It involves inspections, the accountancy and control of material that has been released from weapons programs, and it involves the development of techniques and protocols for ensuring that classified information is not revealed to the inspectors while giving the international community some level of confidence that the material is remaining in peaceful use.

In contrast, the custodial idea goes beyond safeguards in that the state deposits its material with the IAEA, and the IAEA has legal control of it. The state or industry that owns the material would retain title to it, but it could not remove it from international custody until such time that it demonstrated that it had a designated peaceful use. It could not stockpile the material for its own use. It's like putting your money in

the bank—you retain ownership of the money, and when you want to get it out of the bank, you write a withdrawal slip, and if you show them your driver's license, you get your money back. In the custodial regime, you would have to give a number of assurances as well as show that the amount of plutonium that you are withdrawing is consistent with use that you are proposing. So it is a concept that goes beyond safeguards and the verification arrangements being contemplated in the Trilateral Initiative.

Harold Bengelsdorf: Let me add that I am sorry if our proposal is being misinterpreted as being oriented towards the weapon states. That certainly was not the intent. We did visualize a nondiscriminatory regime in which the weapon states and the non-weapon states could participate. We went beyond that; at the end, we said that we doubted very much that anything would happen here unless the United States took the initiative.

We know that when you float an idea like this, the initial governmental response can be negative, cautious, or skeptical. My own view is that nothing is going to happen unless one or more states gets interested and sees that there is a self-interest that can be gained through participation. My perception is that everybody benefits from the concept we are proposing through greater transparency and enhanced confidence that surplus stocks of separated plutonium are being not only well protected, but also that they will not be the subject of diversion.

We know—right or wrong, fair or unfair—that there is an on-going anxiety about the national stockpiling of separated plutonium. The Japanese, who have done more than any other nation to demonstrate the breadth and sincerity of their nonproliferation credentials, continue to be challenged about this. The Japanese may not agree with me, but my judgment is that a country like Japan would benefit through enhanced transparency in a regime like we are proposing. But it is a matter of perception.

Are there other questions?

Question: Thank you. I have two questions. First, I assume that this proposal could be applied to highly enriched uranium (HEU) as well as plutonium. If so, would it apply to HEU in research reactors? There is a lot of HEU in research reactors, and it would be very expensive for the IAEA to have continuous presence at every research reactor fueled with HEU.

Secondly, on physical protection, the way you phrased it to a previous questioner—that the IAEA would pass judgment of the physical protection systems of the state for the plutonium before accepting custody—is a good idea. But there is so much hostility to that among the experts negotiating the amendment to the Physical Protection Convention. As you know, many hold to the notion of physical protection as a national responsibility that has nothing to do with any required international standards. Even if the convention is amended to make it applicable within a country, the consensus among the experts has been against inspections and against international oversight by the IAEA or any other organization. Your phraseology is inconsistent with that, but it might be a way for some big states, as Hal suggested, to take the lead and allow oversight of some physical protection systems.

Harold Bengelsdorf: Let me just comment on the HEU. Frankly, it had not occurred to us to include HEU in the regime we are proposing. HEU is a much more manageable commodity than separated plutonium, in that the risks it poses can be eliminated through the cessation of production of the material, and by blending down the stocks that do exist, which then produces a commercially viable product. I also agree that the idea of an IAEA custodial person sitting at various research reactors around the world would be a prescription for killing this idea before it gets out of the cradle.

Fred McGoldrick: Let me just add that the statute would certainly envisage encompassing HEU in this kind of regime because the statute refers to "special fissionable material." But it seems that one reason to not include HEU is that I can see an end in sight for HEU. There are programs, like the U.S.-Russian HEU Purchase Agreement, that are moving along to get rid of those stocks. On the other hand, I don't see any likelihood that plutonium is going to disappear in the foreseeable future.

On your question about physical protection, what we had envisaged was not that the IAEA would be passing judgment on the physical protection at the storage sites, but that it would require assurances from the state in question that physical protection would be in accordance with international standards. Now, I suppose that one could propose what you just did—and it would be a nice gesture by some of the holders of plutonium to open up their sites to the IAEA for inspection on physical protection—but I really don't see that as being politically practical.

Question: Just following on what Hal and David have said about Japan and transparency—you said that you have not spoken with states or industry about this proposal, but I am just curious if you have had any indication from the Japanese if they would have any interest. Over the past decade or more, the Japanese have gone out of their way to say that they do not have excess material, even though their stockpile continues to grow. So, it would really require them to reverse a lot of statements and positions that they have taken over the past decade. Do you see any interest from them at all, and if so, at what level?

Fred McGoldrick: We have not discussed it with the Japanese. They are aware of it, but we have not discussed it with them. I don't see the Japanese taking the initiative in this regard, but I would think that they might go along with a U.S. initiative. I don't see them acting alone on this, but I also don't see any inconsistency with this and the policies that Japan has adopted. Japan does have excess plutonium, and most of it is in Europe.

There is not an inconsistency between this proposal and Japanese policy. The Japanese have a policy that they are going to make every effort to try to avoid stockpiling plutonium in Japan.

Harold Bengelsdorf: As far as the Japanese attitudes are concerned, I would not even speculate. You will have to ask the Japanese. I anticipate that the initial reaction to this will be: "We tried this once before—not again!" So, nothing is going to happen unless someone gets behind it.

Issues like liability would certainly come up—it raises its head during negotiations all the time—but my own view is that, at the risk of being frivolous, liability issues could be resolved. My guess is that the IAEA would not accept legal liability for accidents, but it is a fair question. I don't know what the answer is, but that is the essence of negotiation. I think that if one stuck to a modest, incremental regime that was not too grandiose, as we have proposed, then something like this could be made to work.

Question: I'd like to start by commending you on your presentation and your paper. It was very sound. I think that it does address most of the difficulties that we faced in the first negotiations on article 12(a)(5) back in 1978. The stumbling blocks are much lower now under your proposal, because you have designed around these problem issues. I am very enthusiastic about this proposal, and think that it should be given a look.

Fred McGoldrick: Thank you. I should mention for the record that the previous questioner led the U.S. negotiating team to the discussions in the late 1970s and early 1980s on establishing an international plutonium system.

Question: My question goes to the issue of what your proposal does in relation to the status quo. Presumably your proposal recognizes that there is an excess of production of separated plutonium in the civil sphere relative to the demand and the willingness of utilities to use this material. Do you in any way contemplate any restraints on the continued production of separated plutonium?

In reading your article, it seemed to me that a state like Japan, with this new international imprimatur on its plutonium stockpile, could continue to add to its stock, and increase the excess that already exists in its program. In my mind, your proposal does not appear to have any benefit in terms of limiting production. I was interested in your comment on that issue.

Also, I was interested in the issue of "need," because "need" is a very amorphous commodity. I recall that when Japan requested the first substantial shipment of plutonium oxide in the mid-1990s, it put forward a demonstration of need to the French, and in my own interviewing of French officials, the French were aware that Japan was asking for more plutonium than its program could absorb at that time. But the French basically said that they could not challenge the statement of need. This plutonium was sent to Japan, and it still remains un-utilized.

The third part of my question concerns how this is going to be viewed by other countries. You mentioned the anxiety over Japan's growing plutonium stockpile. Do you believe that putting an IAEA flag over Japan's existing and growing stock will make the citizenry of Taiwan, China, and South Korea any less anxious?

Harold Bengelsdorf: I don't think that it would be credible or desirable to associate our proposal with any efforts to tell participating states that they should either halt the production of separated plutonium or move away from its use. In our article, we tried to highlight the fact that there is an international disagreement and debate as to how one treats plutonium. To put it mildly, we don't think that this debate is likely to be resolved in the near future. And we just don't think that it is at all credible to postulate some kind of system where an international collective group tries to tell a state what its national fuel cycle policies should be, and whether the constructive use of separated plutonium in the civil nuclear fuel cycle should or should not occur.

I agree that the question of "need" for plutonium, and its return from IAEA custody to a national program, is tricky. I don't think that states will agree to our proposal unless they are confident that they have flexibility and will be able to get the material back on a timely basis. Moreover, that is what the IAEA statute says.

Having said that, I think that this kind of regime puts pressure on a state to ask for the release of material from IAEA custody when it is really programmed for a defined, explicit project. I just think that requests for releases will be questioned if they are so amorphous as to be meaningless. So I do think that there will be an added burden on a state to demonstrate, when it asks for the release of material from IAEA custody, that it is going for an explicit near-term project. If the IAEA Board of Governors ever gets to taking up the definition of a near-term project, my guess is that they will not be able to do so definitively.

Fred McGoldrick: Let me just add a few points. In a sense, your first question is almost irrelevant to our proposal, because even if everybody agreed to stop all reprocessing tomorrow, there is still a heck of a lot of plutonium out there, and there is going to be a heck of a lot more as the disarmament effort progresses. It's not going away very quickly. Even if everybody agreed to immobilize everything—as some advocate—it is going to take a long, long time. Simply put, our proposal is not designed to address your question.

On the question of need, I think that there is an international practice in effect—the International Plutonium Management Guidelines, which were negotiated several years ago—under which suppliers are supposed to require certificates-of-use from countries that are purchasing or having their plutonium returned, in which they have to specify what the end-use is. Under our proposed regime, there would presumably have to be some consistency with the end-use and the amount that is being requested. If a state were requesting substantially more than would be consistent with the stated end-use, then the plutonium would not be released.

Your final question on whether or not a custodial regime would remove the concerns of countries in Northeast Asia about Japanese stockpiles—I don't know whether it would or not. I would think that it would help to relieve some of their concerns; perhaps not remove them. But I would point out that this regime is not directed at the Japanese. Most of the plutonium in the world is in the nuclear weapon states, and I think that our proposal has some arms control and confidence building value there, as well.

Question: What are your next steps with this idea? This is a reasonable idea. You both have lots of experience that you are bringing to it. What are you going to do next?

Harold Bengelsdorf: We frankly don't have a specific agenda. We don't have a web site, and we are not an advocacy group. Thus, we are quite different in background, personality, and tradition than many of those here at this conference. If anything is to come from our proposal, at least one nation possessing plutonium stocks will have to take the initiative.

Question: I'm from COGEMA. I have a few comments. First, I don't think that you can say, on the one hand, that there is a problem in the UK because there are no reactors licensed to use MOX, and on the other hand say that there is a problem in Japan and ignore the reactors in Japan that will be licensed to use MOX. The situation in Japan today is much as it was in France ten or 15 years ago, when France began its MOX-ification effort. I think the Japanese are going to do the same thing in the near future. It is only a question of time.

Second, I do not think that there are big differences between classical safeguards and the custodial regime you describe. The main difference is whether or not the custodian will analyze the plutonium when it enters a facility. Under safeguards, the IAEA has to take measurements of the material when it enters a facility. This would not necessarily happen under a custodial regime, where the state in question could say at the beginning that it does not want the custodian to know the exact isotopic composition of the plutonium. Other than that, I do not see any difference. In fact, the custody regime would be simpler, so long as there is no movement of the plutonium within the facility.

David Albright: Do either of you wish to address these comments? No? Then I would ask if we could stop for now, and resume again in a few minutes after a short break.