AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

S. HRG. 110–710

AGREEMENT FOR PEACEFUL NUCLEAR COOPERATION WITH INDIA

HEARING

BEFORE THE

COMMITTEE ON FOREIGN RELATIONS UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

SEPTEMBER 18, 2008

Printed for the use of the Committee on Foreign Relations

Available via the World Wide Web:
http://www.gpoaccess.gov/congress/index.html

U.S. GOVERNMENT PRINTING OFFICE

46–951 PDF WASHINGTON : 2009

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON FOREIGN RELATIONS

JOSEPH R. BIDEN, JR., Delaware, *Chairman*

CHRISTOPHER J. DODD, Connecticut
JOHN F. KERRY, Massachusetts
RUSSELL D. FEINGOLD, Wisconsin
BARBARA BOXER, California
BILL NELSON, Florida
BARACK OBAMA, Illinois
ROBERT MENENDEZ, New Jersey
BENJAMIN L. CARDIN, Maryland
ROBERT P. CASEY, JR., Pennsylvania
JIM WEBB, Virginia

RICHARD G. LUGAR, Indiana
CHUCK HAGEL, Nebraska
NORM COLEMAN, Minnesota
BOB CORKER, Tennessee
GEORGE V. VOINOVICH, Ohio
LISA MURKOWSKI, Alaska
JIM DEMINT, South Carolina
JOHNNY ISAKSON, Georgia
DAVID VITTER, Louisiana
JOHN BARRASSO, Wyoming

ANTONY J. BLINKEN, *Staff Director*
KENNETH A. MYERS, JR., *Republican Staff Director*

CONTENTS

	Page
Burns, Hon. William J., Under Secretary for Political Affairs, Department of State, Washington, DC	9
Prepared statement	12
Dodd, Hon. Christopher J., U.S. Senator From Connecticut	1
Lugar, Hon. Richard G., U.S. Senator From Indiana	6
Rood, Hon. John G., Acting Under Secretary for Arms Control and International Security; Accompanied by Richard J.K. Stratford, Director, Office of Nuclear Energy, Safety, and Security Affairs, Bureau of International Security and Nonproliferation, Department of State, Washington, DC	16
Prepared statement	18

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

Prepared Statement of Hon. George V. Voinovich, U.S. Senator From Ohio	48
Responses of Under Secretary William Burns and Acting Under Secretary John Rood to Questions Submitted for the Record by Senator John Kerry	49
Responses of Under Secretary William Burns and Acting Under Secretary John Rood to Questions Submitted for the Record by Senator Robert P. Casey, Jr	52
Material Submitted for the Record by Senator Barbara Boxer	55

AGREEMENT FOR PEACEFUL NUCLEAR COOPERATION WITH INDIA

THURSDAY, SEPTEMBER 18, 2008

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The Committee met, pursuant to notice, at 2:35 p.m., in room SD–419, Dirksen Senate Office Building, Hon. Christopher J. Dodd presiding.

Present: Senators Dodd, Kerry, Feingold, Boxer, Webb, Lugar, Hagel, Corker, and Barrasso.

OPENING STATEMENT OF HON. CHRISTOPHER J. DODD, U.S. SENATOR FROM CONNECTICUT

Senator DODD. The Committee will come to order.

And let me welcome Ambassador Burns once again. We could have just recessed the hearing yesterday instead of adjourning it. For those of you who were not in the room, Ambassador Burns was the witness before the committee dealing with the events in Georgia over the last month and a half and did an excellent job.

I think I speak for all of us here in the committee in appreciating very much your testimony and response to questions regarding that situation. And you are welcome back here again today to talk about an agreement for the peaceful nuclear cooperation with India.

And again, let me apologize to my dear friend and colleague from Delaware, Senator Biden, the chairman of this committee, who is, as we all know, otherwise occupied in other places around the country, but has been deeply involved in this issue and extremely knowledgeable about it and would very much have liked to have been here to be a part of this debate and discussion.

And so, it is a poor substitute that I am chairing the committee on his behalf. Having spent a good part of the last week dealing with financial services, an easy jump is to go from that to a United States-India nuclear accord. I am being facetious, obviously, in terms of the intricacies of all of this.

But I am very grateful to Ed Levine and Anthony Weir of Senator Biden's staff and the committee staff, not to mention Fulton Armstrong of my office and others. And Senator Lugar, of course, has been deeply involved in these issues. So we will proceed.

I have an opening statement and comment I want to make. Senator Biden has one as well. But I will ask consent to include them in the record for purposes, and then other members may have some comments.

My good friend Chuck Hagel is here. He may have some thoughts on the subject matter, and others who show up may as well. Then we will get to you very quickly, Mr. Ambassador and Mr. Secretary, for your thoughts on this matter, and then some questions.

And I would tell you in advance, having gone over this last evening and today, some of the questions I may very well submit in writing. Some of them are very technical in nature and will require a written response, I think, probably rather than just having some sort of spontaneous response. But timeliness is important here, obviously, given the constraints we are under and the question of whether or not we are going to deal with this issue in a very truncated period of time that remains before this session of Congress adjourns.

So with that, let me begin, if I can.

Today, the Committee on Foreign Relations holds a very important and, I might add, historic hearing. It is important because the Congress of the United States, the Senate, is being asked to approve an agreement that may have major consequences for U.S. foreign policy in Asia and for nuclear nonproliferation worldwide. It is historic because approval of this agreement should enable the United States and India to get around the biggest obstacle to charting a new course in relations between our two great democracies.

I want to underscore the geopolitical significance of this agreement, if I may. For nearly two generations now, India cast itself as a nation proudly unaligned with the superpowers—not just on arms control and proliferation issues, but really in its whole political orientation.

Today, however, India has become a major actor in the world, and it increasingly sees itself in concert with other global powers, rather than in opposition to them. This is true on counterterrorism, on the need for stability in South Asia, on the fight against infectious diseases, and even on nonproliferation. Its relationship with the United States, quite candidly, has never been closer.

That is why Indian Prime Minister Singh has devoted such energy and courage, I might add, to bring his Parliament along and to press for this agreement to come into force. He has put himself and his party on the line for this. In fact, just that debate and discussion could be a lengthy one in terms of what has gone on politically in India in terms of bringing us to this point.

This is not about improving India's nuclear weapons or even about solving India's energy crisis. At heart, what we are talking about is turning a page in India's relationships with the world, putting its sense of nuclear grievance behind it so that India can work with other great countries from a position of reasonable equality.

The nuclear cooperation agreement that is before this committee is not perfect. As today's hearing proceeds, some of those imperfections will be noted and discussed by a number of our colleagues. But approval of this agreement will still be a milestone in United States-Indian relations. And approve it, in my view, we must. We would be well advised to approve it this month, moreover, rather than waiting until next year.

Allow me to explain briefly why acting now is important. If we want to adjust U.S. law or policy to implement this agreement in

the best manner, we have an opportunity to make those adjustments in the bill that will waive the Atomic Energy Act timelines for considering this agreement.

I hope that opponents of the agreement will let us do that and approve the agreement this month, rather than forcing a delay that will only breed nervousness while we wait to finish the job next year, when we will not need to waive any timelines and will not, I might add, even more importantly, have an opportunity to adjust U.S. policy.

This agreement is not a partisan issue. It had strong support on both sides of the aisle in 2006, and it has support today. And it is important to approve the agreement while we have a responsive partner in India to begin implementing it.

The first step in reaching out to India was taken by President Bill Clinton in the year 2000. India and the United States pledged to continue their nuclear test moratorium, to avoid arms races, to work for a Fissile Material Cut-Off Treaty, and to guard against the proliferation of weapons of mass destruction.

President Bush continued that work that President Clinton had begun. In July 2005, President Bush and Indian Prime Minister Singh agreed that our two nations would negotiate a peaceful nuclear cooperation agreement, and the United States committed to work to get the Nuclear Suppliers Group to permit nuclear commerce with India. India, in turn, would improve its export controls and regulations, separate its civilian nuclear program from its military one, and signed a safeguards agreement and an additional protocol to that agreement with the International Atomic Energy Agency.

In 2006, India published its plan for separating its civilian nuclear program from its military one. That plan calls for accepting safeguards in a phased manner through 2014, over 14 existing or planned nuclear reactors and 6 uranium fuel production facilities. India added that all future civilian nuclear facilities would come under safeguards, but it reserved the right to decide which facilities would be civilian.

At the end of 2006, the United States Congress enacted legislation to allow the President to negotiate and submit to Congress a peaceful nuclear cooperation agreement with India. Legislation was needed because India, although a non-nuclear weapon state under the Nuclear Non-Proliferation Treaty and under U.S. law, actually has a nuclear weapons program and will not accept safeguards over all its nuclear facilities, as called for in the Atomic Energy Act.

I, along with many others, supported the Hyde Act, which gave the go-ahead for the agreement that is before us today. Indeed, 85 members of the United States Senate supported it as well. But that strong vote of approval came about only after this committee addressed the nonproliferation concerns that nuclear trade with India raises.

One of these concerns was nuclear testing. India pledged to maintain its test moratorium, but it has not signed the Comprehensive Test Ban Treaty. Congress made clear in the Hyde Act that any Indian nuclear test would end the waivers authorized by the act. It also called for an end to nuclear commerce with India

in the unlikely event that India were to engage in nuclear or ballistic missile proliferation.

Another concern that was raised was whether to engage in nuclear trade relating to such sensitive activities as uranium enrichment, spent fuel reprocessing, and heavy water production. Congress agreed to limit such commerce with India and made it U.S. policy to seek agreement in the Nuclear Suppliers Group to further restrict transfers of sensitive equipment and technology, including to India.

In order to get India to separate its civilian nuclear program from its military one, President Bush promised to help ensure an uninterrupted supply of nuclear fuel for India's civilian reactors. Few in Congress liked that promise, which suggested that the United States might help India to avoid any pain if sanctions were imposed on it. So the Hyde Act made it U.S. policy that any Indian fuel reserve should be commensurate with reasonable operating requirements of its safeguarded civilian reactors.

Finally, the Hyde Act required the President to make several certifications before submitting the nuclear cooperation agreement that, again, now is before us. The tests that India had to meet included the following:

Providing the United States and the IAEA a credible separation plan for India's nuclear programs and filing a declaration with the IAEA regarding its civilian facilities and materials.

Negotiating a safeguards agreement with the IAEA, which had to provide for safeguards in perpetuity that are in accord with normal IAEA practices.

Third, making significant progress toward concluding the additional protocol to its safeguards agreement, which would give the IAEA access to additional Indian facilities that involved nuclear activities.

Fourth, working with the United States to get a Fissile Material Cut-Off Treaty adopted.

Fifth, working with the United States to prevent the spread of sensitive nuclear technology.

And six, improving its export control regime and adhering to the export guidelines of the Nuclear Suppliers Group and the Missile Technology Control Regime.

I might add, in addition, the Nuclear Suppliers Group had to agree by consensus to a waiver of its guidelines to India.

A week ago, the President determined that each of those standards had been met. He submitted the agreement to the United States Congress, along with the Nuclear Proliferation Assessment Statement required by the Atomic Energy Act.

An important question before us, as we review the agreement and the President's certifications, is whether they comply with the Atomic Energy Act and the Hyde Act. For example, the Hyde Act requires that "India has provided the United States and the IAEA with a credible plan to separate civil and military nuclear facilities and has filed a declaration regarding its civil facilities with the IAEA."

That requirement was not forced on the administration. In fact, this requirement was proposed by the administration.

India announced its separation plan in 2006, and it provided that plan to the IAEA 2 months ago. It has yet to provide a declaration, however, and will not do so until the Congress approves the United States-India agreement.

The administration says that the separation plan contains the declaration and that we shouldn't insist upon a separate declaration. I think we need to discuss that matter today. Mr. Ambassador, we certainly will in the questions before you.

There are also aspects of the agreement itself that should be examined closely. I intend to do my part in the questions. Among the issues I will raise are some of the following:

Whether the agreement satisfies the requirement in the Atomic Energy Act, and I quote it again, "a stipulation that the United States shall have the right to require the return of any nuclear materials and equipment" if India detonates a nuclear explosive device or terminates or abrogates its safeguards agreement.

Whether the agreement satisfies the requirement for "a guaranty" that no fissile material that India obtains or produces pursuant to this agreement "will be stored in any facility that has not been approved in advance by the United States."

Whether the President's nuclear fuel assurances to India, which are repeated in the agreement and paraphrased in India's safeguards agreement, would undermine our ability to respond to an Indian nuclear test.

And whether India's safeguards agreement with the IAEA are sufficient protection against possible diversions of nuclear technology and non-nuclear material from India's civilian nuclear program to its military program.

We enacted the Hyde Act in December 2006, as many will recall. It took another 21 months, I might point out, before the agreement was submitted to Congress.

Given the tight congressional calendar that I mentioned at the outset of this hearing, we have our work cut out for us if we are to address these questions and enact legislation before the Congress in this session adjourns for the year. But we are working hard to get that done, and today's hearing is a vital part of that effort.

We are especially fortunate to have Under Secretary Bill Burns as our chief witness, and we thank you once again. Ambassador Burns is very well known to us and very well respected on this issue. He led the U.S. delegation at the most recent meeting of the Nuclear Suppliers Group, which agreed to allow nuclear commerce with India. Secretary Burns, once again we welcome you before the committee.

I would also note that Acting Under Secretary of State for Arms Control and International Security John Rood has joined Under Secretary Burns, and I understand that he also has prepared a statement that he would make. He, too, has been active in the negotiations relating to this agreement. We welcome you as well to the committee.

I would also like to call the committee's attention to a statement, as I mentioned earlier, by Senator Biden, who is unavoidably not with us, for obvious reasons. And his statement, without objection, will be made a part of the record.

[The prepared statement of Senator Biden follows:]

PREPARED STATEMENT OF HON. JOSEPH R. BIDEN, JR.,
U.S. SENATOR FROM DELAWARE

I am very pleased that the peaceful nuclear cooperation agreement between the United States and India has been submitted to Congress for its review and approval. We should seize this opportunity to build on the foundation laid by President Bill Clinton and cement a new, cooperative relationship with India, the world's largest democracy.

Two years ago, Chairman Lugar and I worked with the administration to enact legislation that changed 30 years of U.S. nonproliferation policy. We agreed to let the administration negotiate and submit to Congress a peaceful nuclear cooperation agreement with India, despite the fact that India has a nuclear weapons program. That wasn't easy. It took soul-searching and compromise on the part of many Members of the Senate regarding the standards for such an agreement and for U.S. policy.

I hope that in a similar fashion, we will be able to approve the U.S.-India agreement before the 110th Congress adjourns. I believe we should do all we can to make that happen. If that requires passing a law or joint resolution that waives the 30-day committee consultation period mandated by section 123 of the Atomic Energy Act, I think we should do that.

We should also make sure, however, that the agreement and any exports made pursuant to it are consistent with U.S law and with our national security interests. As I have stated before, both publicly and privately, if we are to preserve the consensus of 2006 in favor of this agreement, we must make sure that the concerns addressed in the Hyde Act are also addressed in the agreement and in U.S. policy.

I thank Senator Dodd for his willingness to chair this important hearing, and I thank both him and Senator Lugar for the efforts that will be required of them if we are to secure approval of the U.S.-India agreement. Finally, I am gratified that Under Secretary Burns has become such a frequent witness before the committee. His wisdom and experience are serving us very well in difficult times.

Senator DODD. That was a long opening statement. I apologize to my colleagues and others. But this is a very important and historic, as I said, a considerably important agreement that needs to be addressed. So I tried to outline some of the history and where things are at this particular point.

As I mentioned earlier, the former chairman of this committee is very knowledgeable on this subject matter, and I will now turn to Senator Lugar for any opening comments he may have. He has been a major supporter of the safeguards activities of the IAEA, which will be needed for any peaceful nuclear trade with India.

And so, we thank him for his work over the years on the subject matter, and then I will turn to other colleagues.

Thank you.

OPENING STATEMENT OF HON. RICHARD G. LUGAR, U.S. SENATOR FROM INDIANA

Senator LUGAR. Thank you very much, Mr. Chairman.

I join you welcoming our witnesses. I especially want to thank our good friend Under Secretary Bill Burns for coming back to the committee after such a short spell away from us.

In December 2006, Congress overwhelmingly approved legislation setting out the criteria under which we would consider a so-called "123 Agreement" between the United States and India. In advance of consideration of that important legislation, the Committee on Foreign Relations undertook an extensive review of the agreement. We held three public hearings with testimony from 17 witnesses, including Secretary of State Condoleezza Rice.

We received a classified briefing from then Under Secretary of State Nick Burns and Bob Joseph. Numerous briefings were held for staff with experts from the Congressional Research Service, the State Department, the intelligence community, and the National Security Council. I submitted 174 written questions for the record to the Department of State on details of the agreement and posted the answers on the committee Web site.

The committee constructed a bill that allowed the United States to seize an important strategic opportunity while reinforcing United States nonproliferation efforts and maintaining our obligations under the NPT. The committee approved this legislation with a bipartisan vote of 16–2 on June 29, 2006.

Our efforts and those of the House resulted in final passage of the Hyde Act on December 9, 2006, and it was signed into law by President Bush on December 18, 2006.

We expected India to move quickly to negotiate a new safeguards agreement with the IAEA and then to seek consensus from the Nuclear Suppliers Group, the NSG, in accordance with the Hyde Act. Unfortunately, domestic political divisions in India led to a delay that lasted nearly 2 years. Final action on these tasks was not completed until the last several weeks.

India engaged and obtained the approval of a new safeguards agreement with the IAEA on August 1. NSG consensus was achieved on September 6. The administration submitted the agreement to Congress on September 11. This leaves Congress with the difficult task of approving this agreement in the short time before we adjourn.

Under existing law, the committee would normally be in a 30-day period of consultation on the proposed agreement, after which it would have 60 days to consider a resolution approving the agreement. Such a resolution would be privileged and unamendable.

However, if we hope to pass the resolution this year, we cannot wait until all 30 days of the consultation period have transpired. And given the need to waive most of the 30-day consultation period, a simple, privileged resolution is unavailable to us. Amendments will be in order, and there is no guarantee of a vote on final passage.

The agreement before us is complex and will require the concentrated attention of members. The legislation Congress passed in 2006 laid out seven determination requirements that the President must make in order to waive provisions of the Atomic Energy Act and submit the agreement to Congress. And the seven determinations are as follows:

India has provided the U.S. and the IAEA with a separation plan for its civilian and military facilities and filed a declaration regarding civilian facilities with the IAEA.

Second, India has concluded all legal steps prior to signature for a safeguards agreement in perpetuity with the IAEA.

India and the IAEA are making substantial progress in completing an additional protocol, but it is not completed.

India is working actively with the United States to conclude a Fissile Material Cut-Off Treaty.

India is working with and supporting the United States to prevent the spread of enrichment and reprocessing technology.

And India is taking the necessary steps to secure nuclear materials and technology.

And the NSG has decided by consensus to permit supply to India of nuclear items under an exception to their guidelines.

Now last week, the President determined that each of these requirements has been met. Today's hearing will review these determinations in preparation for congressional acceptance. In addition, there were four main policy and legal questions that must be resolved.

First, Indian leaders claim that the United States has agreed that India can test its nuclear weapons and obtain stocks of nuclear fuel to guard against sanctions. They also claim that the United States has conferred the legal status of a nuclear weapons state under the NPT on India.

The President's message to the Congress transmitting the proposed agreement states that any provisions in the agreement are political commitments and not legally binding. Which explanation, in your judgment, is factual? And how do these conflicting statements affect the operation and implementation of the agreement?

Second, is the agreement fully consistent with United States laws that would require termination of the proposed agreement and cessation of nuclear exports to India if it detonates a nuclear explosive device or proliferates nuclear technology?

Third, are the terms of the proposed agreement regarding fuel supply from the United States to India, or supply of fuel from third countries to India, or the creation of a strategic reserve of such fuel in India, consistent with the intent of the Hyde Act? How would the agreement work in cases in which the United States decides to terminate fuel supply to India or demands the return of nuclear material and equipment to the United States in response to an Indian violation of the 123 Agreement or its new safeguards agreement with the IAEA?

And fourth, to what extent has the United States created a new kind of 123 Agreement and model for international nuclear cooperation that may benefit additional countries that have not accepted the NPT and that do not have a comprehensive safeguards agreement with the IAEA?

These issues, in my judgment, must be addressed during our hearing today. Now we need to establish the definitive U.S. interpretation of this agreement. We want to avoid any ambiguity about the effect of the agreement on United States law and policy.

Again, I thank Senator Dodd and Chairman Biden for scheduling and holding this hearing. I am hopeful that Congress will complete our important work on this agreement this year. I am confident if we have total cooperation from the administration and strong bipartisan teamwork here in Congress, we can succeed.

I thank the Chairman.

Senator DODD. Thank you very much, Senator Lugar.

And let me turn to Senator Hagel, Senator Corker. Any comments you want to make at all? Bob, any opening comments?

Well, again, Mr. Ambassador—you are actually called Mr. Ambassador and Mr. Secretary. You have kind of dual hats. Is there a preference you like?

Secretary BURNS. Either one is fine.

Senator DODD. Either one is fine. Well, Mr. Secretary, welcome. And again, any supporting materials and documents that you think are worthwhile will be submitted for the record, and Mr. Rood as well, the same for you would be the case, and our colleagues as well, so we get a full body of evidence here for the committee.

The floor is yours.

STATEMENT OF HON. WILLIAM J. BURNS, UNDER SECRETARY FOR POLITICAL AFFAIRS, DEPARTMENT OF STATE, WASHINGTON, DC

Secretary BURNS. Thank you very much.

Mr. Chairman, Senator Lugar, Senator Hagel, Senator Corker, thank you for the opportunity to testify today. And let me express once again the administration's appreciation to you, to the committee, and to the Congress for your willingness to consider on such short notice the United States-India Agreement for Peaceful Nuclear Cooperation, also known as the 123 Agreement.

Mr. Chairman, from the very outset, as you emphasized, this initiative has depended upon strong bipartisan support. It is anchored by a historic transformation of our relations with India that began more than a decade ago, when both countries were governed by different political parties.

The United States-India relationship transcends both party and partisanship and so, too, has the United States-India Civil Nuclear Cooperation Initiative, as reflected in the large bipartisan majorities in both houses which passed the Hyde Act in 2006.

Mr. Chairman, I have submitted a written statement for the record, and my colleagues and I look forward to answering your questions. What I will try to do now very briefly is to focus on three issues. Why is this initiative so important to the United States? Why is it so important to move forward with such urgency? And what is in the package the President has asked Congress to consider?

Mr. Chairman, there are powerful strategic, environmental, nonproliferation, and economic reasons to support this initiative. Strategically, it reflects the transformation of our relations and a broad recognition of India's emergence on the global stage.

By the year 2025, India will likely rank among the world's five largest economies. It is already among our fastest growing export markets. It will soon be the world's most populous nation.

We share democratic principles, unity, and diversity, traditions of family and community, intertwined economies, and a commitment to fighting terrorism. Indeed, Mr. Chairman, nearly 3 million Indian Americans have made India's cultures and traditions a vital part of the American melting pot.

We are cooperating with India in many ways—on HIV/AIDS, defense and security, trade and investment, and also in Afghanistan, where India is today the fifth-largest donor to civilian reconstruction efforts. So it is an abiding American interest to develop a strong and forward-looking partnership with the world's largest democracy.

This civil nuclear initiative is about advancing that common strategic vision. Environmentally, this initiative will help India's population of more than a billion to meet their rapidly rising energy

needs. India is growing at rates of 8 to 9 percent per year. And to sustain those rates of growth, it must expand its supply of energy exponentially.

Between 1980 and 2001, India's demand increased by a staggering 208 percent. By contrast, China, so often described as the world's next big energy consumer, saw just 130 percent increase, about half of India's, over the same period. India will soon outstrip Japan and Europe as an oil importer. It seeks to double its capacity to generate electricity in the next 7 years and relies primarily on domestically produced coal, whose ash content is double that of American coal and emits far more nitrogen oxide, an element in smog, and carbon monoxide, a poisonous gas.

This means, Mr. Chairman, that India will be one of the world's largest producers of greenhouse gas emissions. So its decision to rely in part on clean and efficient nuclear energy positively affects our own environmental future, not just India's.

This initiative has important nonproliferation benefits, and my colleague John Rood will address these in greater detail. I would note, however, India's strong nonproliferation record and enhanced nonproliferation commitments under this initiative, outlined in the 2005 joint statement and reiterated by Foreign Minister Mukherjee in his statement of September 5.

These include continuation of India's moratorium on nuclear testing, separation of its civilian and military nuclear facilities and programs, and harmonization and adherence to MTCR and NSG guidelines. India has made other nonproliferation commitments and taken actions summarized in the President's package of determinations under the Hyde Act.

Finally, Mr. Chairman, this initiative has economic benefits that will accrue to both India and the United States. The civil nuclear initiative enjoys strong support from U.S. industry, and India's ambitious nuclear energy plans demonstrate why. Indian officials indicate they plan to import at least 8 new 1,000-megawatt power reactors by the year 2012 and additional reactors in the years ahead.

Preliminary private studies suggest that even just two of these reactor contracts for U.S. firms would add 3,000 to 5,000 new direct jobs and about 10,000 to 15,000 indirect jobs in the United States. So I would call your attention to the strong commercial letter of intent we negotiated with India, which has been strongly endorsed by key U.S. firms.

These, Mr. Chairman, are the key benefits of the initiative, and we believe they are compelling. So let me briefly address the question of why now? Because we believe the time is now for Congress to move forward on the 123 Agreement.

First, as you mentioned in your opening statement, Mr. Chairman, we need to capitalize on the positive momentum in our relations. For 60 years, United States-India relations have gone through recurring cycles of euphoria and disappointment, ups and downs, highs and lows. Now we are on an upward swing, and so we need to capture that momentum, locking in the very significant gains that have been achieved in recent years.

Second, we need to establish a platform on which the next administrations in both countries can build. The United States goes to the polls in 7 weeks. India must hold an election within 6

months of that. So as both countries prepare for elections, it is important to remember, as I said at the outset, that the transformation of United States-India relations began when both countries were governed by different political parties.

The Clinton and Vajpayee administrations established the platform on which the Bush and Singh administrations have built. Just as our predecessors built the positive legacy on which this civil nuclear initiative builds, it is important that we leave the next American President and Indian Prime Minister a platform on which they, in turn, can build.

Finally, Mr. Chairman, let me say something about the package you have before you. We believe it is a strong package based on solid Presidential determinations and consistent with the requirements Congress laid out for us in the Hyde Act. Indeed, I want to assure you, Mr. Chairman, and also the Congress, that the United States sought a Nuclear Suppliers Group exception for India consistent with the Hyde Act and at the same time capable of commanding a consensus within the group.

The Hyde Act does not require incorporation of its specific terms and restrictions in the NSG exception, but we pursued the NSG exception with a careful eye to Hyde. And the result is an NSG exception that contains no provision inconsistent with the Hyde Act and that takes account of its terms and restrictions.

I know there are many technical questions, both about the exception and the President's determinations, and Under Secretary Rood is prepared to address these in greater detail. But I did want to speak to some of those we have heard most often.

In our consultations with members and staff, these questions have arisen repeatedly. First, we have been asked what would happen if India conducts a nuclear weapons test? And the short answer is that while India maintains a sovereign right to test, we most certainly maintain a sovereign right to respond.

We believe the Indian Government intends to uphold the continuation of the test moratorium it committed to in 2005 and reiterated in its September 5 statement. We also believe India will uphold its safeguards agreement with the IAEA.

But Secretary Rice has noted clearly that we reserve the right to take appropriate action should India, nonetheless, resume nuclear testing. And as she told Congress on April 5, 2006, "We have been very clear with the Indians. Should India test, as it has agreed not to do, or should India in any way violate the IAEA safeguards agreements to which it would be adhering, the deal, from our point of view, would, at that point, be off."

Second, we have been asked why we did not support an automatic termination provision in the NSG. We could not support proposals to automatically terminate the exception if India tests because the Atomic Energy Act gives the President the statutory authority to waive restrictions if terminating cooperation would be "seriously prejudicial to the achievement of U.S. nonproliferation objectives or otherwise jeopardize the common defense and security." To do so would have tied the hands of this and every President to exercise their authority under the Act.

Third, we have been asked about enrichment and reprocessing technology. The Hyde Act does not allow for U.S. transfer to India

of such technology, except in very narrowly limited circumstances. The administration continues to pursue, within the NSG, limitations on such transfers based on appropriate nonproliferation criteria.

I know John Rood will also speak to these issues, and so, Mr. Chairman, let me just conclude with this. We look to the rise of India as an opportunity not just to share the benefits of the international system, but also the burdens and responsibilities of maintaining, strengthening, and defending it. Two administrations in both countries have sought to embrace that opportunity. We believe this initiative helps to do so and, thus, that it will shape the 21st century for the better.

Thank you very much.

[The prepared statement of Ambassador Burns follows:]

PREPARED STATEMENT OF HON. WILLIAM J. BURNS, UNDER SECRETARY OF STATE FOR POLITICAL AFFAIRS, DEPARTMENT OF STATE, WASHINGTON, DC

Mr. Chairman, Senator Lugar, distinguished members of the committee, thank you for inviting my colleague, Acting Under Secretary for Arms Control and International Security John Rood, and me to discuss the U.S.-India Civil Nuclear Cooperation Initiative and recent submission of the "Agreement for Cooperation Between the Government of the United States of America and the Government of India Concerning Peaceful Uses of Nuclear Energy" (123 Agreement) to the Congress for ratification.

In 2005, President Bush and Indian Prime Minster Manmohan Singh sought to fundamentally transform the nature of the U.S.-India relationship. Our two countries have had uneven relations over the past 50 years. We have worked together in selected areas, such as sparking a new "Green Revolution" in India, but that cooperation never translated into a broad-based strategic partnership.

In hindsight, this estrangement seems curious. Our broad similarities as multireligious, multiethnic democracies should have made us partners. But in the cold-war era, India was a leader of the nonaligned movement while the United States and its Western partners focused on building partnerships and international structures to address the overarching geopolitical competition.

President Clinton began the transformation in our relationship with India in the 1990s. He told the Indian Parliament in 2000 that we were "natural allies, two nations conceived in liberty, each finding strength in its diversity, each seeing in the other a reflection of its own aspiration for a more humane and just world." President Bush and Prime Minister Singh have now taken our relationship to the next level. In March 2006, they announced joint ventures in 18 different fields, including education, science and technology, agriculture, and defense. Mr. Chairman, my colleague and I are here today to ask the Senate for its support in solidifying our cooperation with India in the civil nuclear field—the signature, strategic effort that Congress and the administration have undertaken with India since 2005. By addressing, and thus surmounting, the principal obstacle that has, for decades, stood in the way of better relations, the nuclear agreement is not only important on its own terms but has moved our relations farther and faster forward than any other step.

India's emergence on the global scene is both inevitable and positive. By 2025, India will most likely rank among the world's five largest economies. India will soon be the world's most populous nation, and it will soon have the largest and fastest growing middle class in the world.

India's Armed Forces, like ours, are committed to the principle of civilian control. India is a democracy—and a very successful one that has defied the expectations of so many who believed the country was too diverse to succeed. We believe India will support a peaceful balance of power in Asia. In short, India is an emerging major power whose society is open, transparent, democratic, and stable. Its government counts diversity as an abiding strength and values and protects the rule of law. India's political transitions, like ours, are marked by popular discourse and elections. India is a role model in the international community.

Establishing and strengthening our strategic partnership with India has been a key foreign policy priority for the administration, as it was for our predecessor and, as I suspect, it will be for our successor. No wonder, then, that this relationship and

the Civil Nuclear Cooperation Initiative have received such broad, bipartisan support from the Congress.

Meanwhile, the American people and the private sector have outpaced government interactions and already are pulling our two countries closer together. Today there are nearly 3 million Indian-Americans in the United States, over 80,000 Indian students enrolled in U.S. colleges and universities, while tens of thousands of American citizens are living and working in India. India has become one of our fastest growing export markets and bilateral trade continues to expand, doubling over the past 3 years to top $42 billion in 2007. Indeed, U.S. goods and service exports to India were up 75 percent last year alone, cutting our trade deficit with India by 42 percent. We also are continuing to work closely with India to help further open its markets and improve its investment climate. Two-way investment already is rapidly rising and in 2007 Indian investment in the United States passed $2 billion. India has been a valuable partner in the fight against terrorism and disease, drugs and proliferation. These global scourges present particular challenges for South Asia and India's leadership on these issues has made it a force for stability in a volatile region.

Mr. Chairman, relations between the United States and India are strong, but we are on the cusp of something greater. As both the United States and India approach elections, we believe this Congress now has the opportunity to lay a foundation that will allow successor governments in both countries to take U.S.-India relations to the next level. Congress can do this by making civil nuclear cooperation between our two countries a reality. With the approval of India's safeguards agreement by the International Atomic Energy Agency Board of Governors, and an exception authorizing nuclear trade with India approved by the Nuclear Suppliers Group, congressional ratification of the 123 Agreement is the final step in bringing this multiyear effort to fruition.

We fully appreciate the extraordinary nature of the timeframe within which we are asking the Congress to consider this initiative. The questions that this initiative raises are important to our national security, to the future of our relationship with an emerging major power, and to nonproliferation worldwide. We owe you our thanks as we ask for your forbearance. We would not be asking for such exceptional consideration if we did not believe it was absolutely necessary to complete an initiative on which both the administration and Congress have worked so hard since 2005.

If we act together now, we can be certain that the government in New Delhi will support the full realization of the 123 Agreement and civil nuclear cooperation with the United States. Just as we will soon undergo a political transition, so too, will India next spring. I believe it is very important that we seize upon the momentum we have now, with partners that are devoted to fulfilling the terms of a complex negotiation.

Mr. Chairman, we believe that moving forward on the U.S.-India Civil Nuclear Cooperation Initiative also will help advance other areas in the U.S.-India relationship. It will facilitate and expand ongoing cooperation in agriculture, science and technology, defense, and joint democracy endeavors. The Initiative also offers far-reaching economic, environmental, and security benefits.

India's rapidly expanding economy, coupled with its population growth, has created an enormous demand for energy. After averaging just 3.2 percent growth between 1950–80 under a heavily state-controlled economy, reforms in the 1980s and 1990s boosted India's annual growth rate to around 6 percent a year over the past 20 years. In the past 4 years, India has averaged growth of 8.9 percent. Indian companies are world leaders in information technology, pharmaceuticals, steel, and many other industries. To continue its rapid economic expansion, India urgently requires new sources of power generation. India already suffers from a significant electricity shortage which shows no sign of easing. Between 1980 and 2001, demand in India increased by 208 percent making it one of the largest energy consumers in the world. By contrast, China, often thought of as the next big energy consumer, saw a 130-percent increase over the same period. India is struggling to keep up with its energy demands, with many urban areas currently subject to unscheduled blackouts and routine daily interruptions of power. These shortages are expected to become more severe—thus preventing India's growing industries from functioning effectively. Such unreliability is detrimental to India's economic growth and a deterrent to foreign investment.

Various studies project that India's demand for electricity will continue to increase dramatically over the next 15 years. Expanding India's access to nuclear power—a clean, viable alternative to fossil fuels—is a partial answer to this important problem. The Indian Government has announced plans to expand its nuclear sector in the coming years to satisfy up to 20 percent of its demand for energy. Nu-

clear energy currently accounts for only 3 percent of India's power generation. To put this in perspective, even the United States, which has historically limited nuclear energy use, derives over 20 percent of its power from nuclear energy. Japan derives 30 percent, Switzerland nearly 40 percent, and France roughly 85 percent.

For the people of rural India, where only 55 percent of households even have access to electricity, the reality of a reliable, uninterrupted source of electricity will improve quality of life for millions, promote economic development, and help to stabilize spiraling food prices.

Civil nuclear cooperation with India also could have significant environmental benefits since nuclear energy does not emit greenhouse gases. Between 1990 and 2001 India's carbon emissions increased by 61 percent; a rate of growth surpassed only by China. Extrapolating from these trends, scientists expect that this will only get worse. Between 2001 and 2025, scientists predict that India's carbon emissions will grow by 3 percent annually, twice the United States predicted emissions growth. Power plants are the main source of Indian carbon dioxide emissions. These high emissions, coupled with emissions from other sources, have made all four of India's largest cities—New Delhi, Mumbai, Chennai, and Kolkata—among the most polluted in the world. Nuclear energy in India would be an important alternative to the carbon-based fossil fuels that are currently used to produce the vast majority of India's electricity today. This would create cleaner air and a healthier environment while making an important contribution to halting global warming. Indian officials have projected that civil nuclear cooperation could lead to the import of up to 40 gigawatts of new power generation capacity by 2020. A program even half that ambitious would reduce India's carbon output by 150 million tons annually. This is equivalent to half the total carbon dioxide output of California.

For the United States, the Civil Nuclear Cooperation Initiative will open up trade and investment opportunities for U.S. firms in the multibillion dollar Indian nuclear energy sector for the first time in over three decades. Meeting India's demand for civilian nuclear technology, fuel, and support services holds the promise of substantial new business for the American nuclear industry, which will translate into new jobs and export income for the United States. A number of private studies of the Initiative's economic impact estimate that the award of new contracts to American nuclear firms will result in the creation of thousands of new jobs.

Civil nuclear cooperation also will have an impact far beyond the nuclear energy sector. By unlocking trade in civil nuclear technology, we will help unlock a broader and deeper relationship, which would result in increased trade in many other areas of cutting edge technology, such as space, biotechnology, and dual-use high technology—all of which are critical to India's economic growth and development. This initiative is a key element of our growing partnership with India: It helps make possible significant achievements in many other areas of cooperation. By including civil nuclear cooperation in our broad spectrum of collaborative activities, the rewards of a U.S.-India partnership can truly reach every Indian and American, from farmer to physicist.

We expect that the success of the U.S. nuclear industry in the Indian market will flow from the high quality of the products and services they provide. Without approval and implementation of the 123 Agreement, however, U.S. nuclear firms will be precluded from competing in this important new global market. Reflective of our new relationship with India, the Indian Government has publicly stated its intention to work with U.S. nuclear firms. But international competition will, inevitably, be intense and we want to avoid exposing U.S. firms to any unnecessary delays.

The administration has taken a number of steps to ensure the U.S. nuclear industry will not suffer any competitive disadvantages during the 123 Agreement review process. The Indian Government has provided the United States with a strong Letter of Intent, stating its intention to purchase reactors with at least 10,000 megawatts (MW) worth of new power generation capacity from U.S. firms. India has committed to devote at least two sites to U.S. firms. India also has committed to adhere to the Convention on Supplementary Compensation for Nuclear Damage. Adherence to this international liability regime by the Indian Government is an important step in ensuring U.S. nuclear firms are competing on a level playing field with other international competitors. The expansion of U.S. nuclear firms into India's growing market will provide a boost for our revitalized domestic nuclear industry. Cooperation also will provide the United States with an important new partner in conducting advanced research and development of nuclear technology as we strive to develop new sustainable sources of energy.

Finally, the Civil Nuclear Cooperation Initiative advances U.S. nonproliferation goals by bringing India, a state with expertise in the full nuclear fuel cycle, closer to the global nonproliferation mainstream. My colleague, Acting Under Secretary John Rood, will discuss in detail India's specific nonproliferation commitments and

the actions it has taken consistent with the 2005 Joint Statement and the Hyde Act. However, I would like to provide an overview for the committee of the real nonproliferation benefits the Initiative provides in advancing the fight against the spread of weapons of mass destruction and their delivery systems.

The Initiative has been predicated on the notion that the global nonproliferation regime is strengthened by drawing India closer, rather than leaving it on the outside. The reality for decades has been that India possesses nuclear weapons and has no plans to sign the Nuclear Non-Proliferation Treaty in the foreseeable future. The Initiative takes a pragmatic approach to dealing with this situation. International Atomic Energy Agency (IAEA) Director General Mohamed ElBaradei has endorsed this view and welcomed the Initiative noting, "Out-of-the-box thinking and active participation by all members of the international community are important if we are to advance nuclear arms control, nonproliferation, safety and security, and tackle new threats such as illicit trafficking in sensitive nuclear technology and the risks of nuclear terrorism."

Through the Initiative with the United States, India has committed itself to follow the same practices as responsible nations with advanced nuclear technology. It has agreed to participate in cooperative efforts to deal with the challenges posed by the proliferation of weapons of mass destruction and their delivery systems. In particular, in the July 2005 Joint Statement, India made a number of important nonproliferation commitments, including to:

- Identify and separate its civil and military nuclear facilities and programs.
- Place all current and future civil nuclear facilities under IAEA safeguards—in perpetuity. Under India's separation plan, 65 percent of India's current nuclear power generation would be placed under safeguards and opened to IAEA inspection by 2014. This proportion could rise to as high as 80 percent in future years as new reactors are built and imported by India. Without the Initiative, India's nuclear infrastructure would remain opaque and operate substantially outside safeguards.
- Negotiate and sign an Additional Protocol with the IAEA. While India already has a solid nuclear nonproliferation record, conclusion of an Additional Protocol would give the IAEA expanded rights to access information about the full range of India's civil nuclear fuel cycle, providing even more transparency.
- Implement a robust national export control system. India's harmonization with and adherence to the Missile Technology Control Regime (MTCR) and the Nuclear Suppliers Group (NSG) Annexes and Guidelines will help ensure unlawful transfers of sensitive nuclear- and missile-related technologies do not take place.
- Work with the United States to conclude a multilateral Fissile Material Cutoff Treaty (FMCT). India has expressed support for moving forward on FMCT negotiations in the Conference on Disarmament.
- Refrain from transfers of enrichment and reprocessing technologies to states that do not already possess them and support efforts to limit their spread. India's commitment will support President Bush's initiative to avoid the spread of the technologies of greatest concern from the standpoint of nuclear weapons development. India also has expressed support for efforts to develop international fuel banks as an incentive for states to not pursue such technologies.
- Committed to continuing its moratorium on nuclear testing. This policy was publicly reaffirmed by Indian Foreign Minister Mukherjee on September 5 and contributes significantly to enhancing stability in a volatile region.

In addition to these commitments, India has played a constructive role in dealing with some of today's most pressing nonproliferation challenges, including voting twice with the United States to refer Iran to the U.N. Security Council. We believe successful implementation of the Initiative will presage further and closer cooperation between India, the United States, and its allies on current and future nonproliferation challenges.

India has proven itself a responsible actor with respect to the export of sensitive nuclear technologies. Based on its sound record on onward proliferation, its enhanced nonproliferation commitments, and its clear and expansive energy needs, India presents a unique case for civil nuclear cooperation. This reality has been recognized by the international nonproliferation community as reflected in the unanimous approval of India's safeguards agreement by the IAEA Board of Governors in July 2008 and the consensus approval earlier this month by the Nuclear Suppliers Group of an exception to authorize members to engage in civil nuclear trade with India.

CONCLUSION

President Bush and Prime Minister Singh have demonstrated a commitment to transforming the strategic relationship between our two nations. Approval of the 123 Agreement with India would surmount a longstanding obstacle in our relations and pave the way for the United States and India to address as partners the global security, economic, and environmental challenges of the 21st century. With your support, we hope this Congress will take this critical action to make the historic vision of closer U.S.-India cooperation a reality.

Senator DODD. Thank you very much, Mr. Secretary.

I note we have been joined by our colleagues Senator Kerry, Senator Boxer, and Senator Webb. We thank all three of them for being here.

Let me turn to you, Mr. Rood, if I can. I want to also note the presence of Director Richard Stratford, who is the director of the Office of Nuclear Energy, Safety, and Security Affairs in the Bureau of International Security and Nonproliferation, Department of State. We welcome you as well.

And John Rood is the Acting Under Secretary for Arms Control and International Security, at the Department of State, and we welcome your testimony.

STATEMENT OF HON. JOHN G. ROOD, ACTING UNDER SECRETARY FOR ARMS CONTROL AND INTERNATIONAL SECURITY; ACCOMPANIED BY RICHARD J.K. STRATFORD, DIRECTOR, OFFICE OF NUCLEAR ENERGY, SAFETY, AND SECURITY AFFAIRS, BUREAU OF INTERNATIONAL SECURITY AND NONPROLIFERATION, DEPARTMENT OF STATE, WASHINGTON, DC

Mr. ROOD. Thank you, Mr. Chairman, and thank you for the opportunity to testify today in support of the United States-India Civil Nuclear Cooperation Initiative.

As you know, the President recently submitted a package of documents to the Congress with the determinations required by the Hyde Act. The administration believes this package meets the criteria established by Congress in the 2006 Hyde Act. We, therefore, urge the Congress to act this session to bring into force the United States-India Agreement for Peaceful Nuclear Cooperation, or so-called 123 Agreement since it is concluded pursuant to section 123 of the Atomic Energy Act of 1954.

The United States-India Civil Nuclear Cooperation Initiative provides substantial political, economic, nonproliferation, and security benefits. I will focus on the nonproliferation and security benefits of this initiative in my remarks.

Since the outset of the initiative, we have sought to build a strategic partnership with India and to advance our nonproliferation objectives by bringing India into the international nonproliferation mainstream. In the July 18, 2005, joint statement by President Bush and Prime Minister Singh, India made a number of important nonproliferation commitments. Many of these commitments were incorporated into the Hyde Act. They were reiterated as well by India's Minister of External Affairs, Mr. Mukherjee, in a statement on September 5, 2008.

These important nonproliferation commitments provide a foundation upon which we have continued to build over the last 3 years with the completion of India's separation plan, the 123 Agreement,

the India IAEA safeguards agreement, and most recently the Nuclear Suppliers Group decision to allow for civilian nuclear trade with India.

Mr. Chairman, allow me to address some of the issues that have been raised during briefings for the committee staff by administration officials. Regarding India's May 2006 separation plan, we believe its implementation will produce a significant nonproliferation gain. Once implemented, the percentage of India's total installed nuclear power capacity under IAEA safeguards will increase from 19 percent today to 65 percent by 2014.

A further increase up to 80 percent, or perhaps even higher, is possible if India expands its civil nuclear infrastructure through foreign supply and indigenous development as it currently plans.

The nonproliferation implications of placing such facilities under IAEA safeguards are clear. Every existing or new facility placed under safeguards will be designated as a civilian facility and will not be available to potentially contribute to India's nuclear weapons program. Furthermore, the civil nuclear cooperation initiative creates an incentive for India to declare as many facilities as possible as civil in order to enjoy the benefits of international cooperation.

India's safeguards agreement with the International Atomic Energy Agency, or IAEA, provides for effective safeguards on Indian facilities and material. As IAEA Director General Mohamed ElBaradei said in speaking to the IAEA Board of Governors, "The agreement is of indefinite duration. There are no conditions for the discontinuation of safeguards other than those provided by the safeguards agreement itself."

In addition, once concluded, the additional protocol will provide additional nonproliferation benefits and greater monitoring of materials, equipment, and technology. IAEA Director General ElBaradei reports that the IAEA and India are making substantial progress on an additional protocol, and we continue to urge a speedy and successful conclusion to these negotiations.

Beyond the safeguards agreement and the additional protocol, India has made strong progress in the area of export controls. India is taking the necessary steps to secure nuclear and other sensitive materials and technology, including through the enactment and enforcement of comprehensive export control legislation and regulations as well as harmonization of its export control laws, regulations, policies, and practices with the guidelines and practices of the Missile Control Technology Regime and the Nuclear Suppliers Group, as it committed to do in the July 2005 joint statement.

Let me also address some aspects of the recently approved Nuclear Suppliers Group statement on civil nuclear cooperation with India. This statement creates the exception that permits international civil nuclear trade with India by NSG members. An initial U.S. draft text was first discussed at an NSG meeting on August 21 and 22 of this year. NSG participating governments met again from September 4 through 6, and after intensive discussions, the NSG reached consensus on September 6 to allow for civil nuclear cooperation with India.

Let me be clear, Mr. Chairman, that during these negotiations no side deals were made by the United States to achieve consensus

at the Nuclear Suppliers Group. We achieved consensus because there was a strong desire among participating governments to find a way to enable civil nuclear cooperation trade with India while reinforcing the global nonproliferation regime. We were able to do both.

The text of the statement adopted by the NSG is fully consistent with the Hyde Act. The same Indian nonproliferation commitments made in the July 2005 joint statement between the President and Prime Minister Singh, which were also incorporated in the Hyde Act, are included in the NSG statement. In fact, the NSG explicitly granted the exception to allow for nuclear trade with India based on the commitments and actions by India.

The exception provides for ongoing dialogue and cooperation between the NSG and India through outreach by the NSG chairman and permits the NSG to periodically consider implementation of the exception and hold consultations on any issues or circumstances of concern.

India's voluntary unilateral moratorium on nuclear testing is important. We have been very clear on this with the Indian Government. Just as India has maintained its sovereign right to conduct a nuclear test, so, too, have we maintained our right to take action in response.

As Secretary Rice said before this committee in April 2006, and I quote, "We have been very clear with the Indians. Should India test, as it has agreed not to do, or should India in any way violate the IAEA safeguards agreements to which it would be adhering, the deal, from our point of view, would be, at that point, off."

In this 123 Agreement, for example, either party has the right to terminate the agreement and seek the return of any transferred materials and technology if it determines that circumstances demand such action. Likewise, the NSG exception permits any participating government, including the U.S., to request a meeting of the group to consider actions if circumstances have arisen which require consultations.

Mr. Chairman, we believe this initiative will have a lasting strategic impact in building a new strategic partnership with India, reducing India's dependency on fossil fuels and resulting greenhouse gas emissions. It will help lift millions of Indian citizens out of poverty while, at the same time, strengthening the nuclear nonproliferation regime.

So, in conclusion, Mr. Chairman, Senator Lugar, and other Senators on the committee, I thank you for the opportunity to testify before you today.

[The prepared statement of Mr. Rood follows:]

PREPARED STATEMENT OF HON. JOHN C. ROOD, ACTING UNDER SECRETARY OF STATE FOR ARMS CONTROL AND INTERNATIONAL SECURITY, DEPARTMENT OF STATE, WASHINGTON, DC

Mr. Chairman, thank you for the opportunity to testify in support of the U.S.-India Civil Nuclear Cooperation Initiative.

As you know, the President recently submitted a package of documents to the Congress with the determinations required by the Hyde Act. The administration believes this package meets the criteria established by the Congress in 2006 in the Hyde Act. We therefore urge the Congress to act this session to bring into force the U.S.-India Agreement for Peaceful Nuclear Cooperation or so-called 123 Agreement, pursuant to section 123 of the Atomic Energy Act of 1954, as amended.

The U.S.-India Civil Nuclear Cooperation Initiative provides substantial political, economic, nonproliferation, and security benefits. I will focus on the nonproliferation and security aspects of the Initiative in my remarks.

Since the outset of this Initiative, we have sought to build a strategic partnership with India, and to advance our nonproliferation objectives by bringing India into the international nonproliferation mainstream. In the July 18, 2005, Joint Statement by President Bush and Prime Minister Singh, India made a number of important nonproliferation commitments. Many of these commitments were incorporated into the Hyde Act. They were reiterated by India's External Affairs Minister Mukherjee in a statement on September 5, 2008.

These important nonproliferation commitments provide a foundation upon which we have continued to build over the past 3 years with the completion of India's Separation Plan, the 123 Agreement, the India-IAEA Safeguards Agreement, and, most recently, the Nuclear Suppliers Group decision to allow civilian nuclear trade with India.

Mr. Chairman, allow me to address some of the issues that have been raised during briefings for the committee staff by administration officials.

Regarding India's May 2006 Separation Plan, we believe its implementation will produce a significant nonproliferation gain. Once implemented, the percentage of India's total installed nuclear power capacity under IAEA safeguards will increase from 19 percent today to 65 percent by 2014. A further increase up to 80 percent is possible if India expands its civil nuclear infrastructure through foreign supply and indigenous development as it currently plans.

The nonproliferation implications of placing such facilities under IAEA safeguards are clear. Every existing or new facility placed under safeguards will be designated as a civilian facility and will not be available to potentially contribute to India's nuclear weapons program. Furthermore, the Civil Nuclear Cooperation Initiative creates an incentive for India to declare as many facilities as possible as "civil" in order to enjoy the benefits of international cooperation.

India's Safeguards Agreement with the International Atomic Energy Agency (IAEA) provides for effective safeguards on Indian facilities and material. As IAEA Director General Mohamed ElBaradei told the IAEA Board of Governors ". . . the agreement is of indefinite duration. There are no conditions for the discontinuation of safeguards, other than those provided by the safeguards agreement itself." In addition, once concluded, an Additional Protocol, will provide additional nonproliferation benefits and greater monitoring of materials, equipment, and technologies. IAEA Director General ElBaradei reports that the IAEA and India are making substantial progress on an Additional Protocol and we continue to urge a speedy and successful conclusion to these negotiations.

Beyond the Safeguards Agreement and the Additional Protocol, India has made strong progress in the areas of export controls. India is taking the necessary steps to secure nuclear and other sensitive materials and technology, including through the enactment and effective enforcement of comprehensive export control legislation and regulations, as well as harmonization of its export control laws, regulations, policies, and practices with the guidelines and practices of the Missile Technology Control Regime and the Nuclear Suppliers Group, as it committed to do in the July 2005 Joint Statement.

Let me also address some aspects of the recently approved Nuclear Suppliers Group Statement on Civil Nuclear Cooperation with India. This statement creates the exception that permits international civil nuclear trade with India by NSG members. An initial U.S. draft exception text was first discussed at an NSG meeting on August 21–22. NSG Participating Governments met again from September 4–6, and after intensive discussions, the NSG reached consensus on September 6 to allow for civil nuclear cooperation with India.

Let me be clear that during these negotiations no side deals were made by the United States to achieve consensus at the Nuclear Suppliers Group. We achieved consensus because there was a strong desire among Participating Governments to find a way to enable civil nuclear trade with India while reinforcing the global nonproliferation regime. We were able to do both.

The text of the statement adopted by the NSG is fully consistent with the Hyde Act. The same Indian nonproliferation commitments made in the July 2005 Joint Statement between President Bush and Prime Minister Singh, which were also incorporated in the Hyde Act, are included in the NSG statement. In fact, the NSG explicitly granted the exception based on these commitments and actions by India. The exception provides for ongoing dialogue and cooperation between the NSG and India through outreach by the NSG chairman and permits the NSG to periodically consider implementation of the exception and hold consultations to address any circumstances of concern.

India's voluntary, unilateral moratorium on nuclear testing is important. We have been very clear on this subject with the Indian Government. Just as India has maintained its sovereign right to conduct a test, so too have we maintained our right to take action in response. As Secretary Rice said before this committee in April 2006, "We've been very clear with the Indians—should India test, as it has agreed not to do, or should India in any way violate the IAEA safeguards agreements to which it would be adhering, the deal, from our point of view, would at that point be off." In the 123 Agreement, for example, either party has the right to terminate the agreement and seek the return of any transferred materials and technology if it determines that circumstances demand such action. Likewise, the NSG exception permits any Participating Government, including the United States, to request a meeting of the group to consider actions if "circumstances have arisen which require consultations."

Mr. Chairman, we believe that this Initiative will have a lasting strategic impact in building a new strategic partnership with India, reducing India's dependency on fossil fuels and resulting greenhouse gas emissions, and will help lift millions of Indian citizens out of poverty, while at the same time strengthening the nuclear nonproliferation regime.

Mr. Chairman, thank you again for the opportunity to testify today. I look forward to answering your questions.

Senator DODD. Thank you very, very much.

And let me ask the Clerk to put an 8- or 9-minute clock on here, and I won't bang down the gavel. There are a lot of very important questions I know colleagues have, as Senator Lugar has already pointed out, and we will try to adhere to that time if we can.

Let me begin with sort of the practical questions, if I can, Secretary Burns. What does the administration want Congress to do?

Secretary BURNS. Our hope, Mr. Chairman, is that the Congress will be able to move in this session to approve the initiative.

Senator DODD. Well, in that regard, that requires certain waivers. So you are asking the Congress to waive the 30-day requirement under the Atomic Energy Act legislation. Is that correct?

Secretary BURNS. Yes.

Senator DODD. Are you willing to accept the fact that there are rumors that the administration may just try and put this agreement without any further consideration by the committee as part of a continuing resolution, or would you prefer, as we hope you will, a product that was worked on by this committee and by the bicameral, bipartisan process here to produce something that would pass muster here? Which is your preference?

Secretary BURNS. Our preference is certainly to work with the committee and work with the Congress toward an approval that all of us support.

Senator DODD. Because I know there are members here and there are others in the other body who have expressed some reservations about this. And I want to know at the outset, while we have a truncated amount of time, whether or not the administration is prepared to work with us to try and resolve some of those matters, if at all possible, as we move forward.

Secretary BURNS. Yes, sir.

Senator DODD. Let me, if I can, move to another line of questioning, a series of questions. And after that, I will turn to Senator Lugar. I have additional ones beyond this, but these may require some time for you to respond to them.

It has to do with the fuel assurances and the United States-India agreement. In the article 5, section 6 of the agreement with India repeats President Bush's March 2006 fuel assurances. Let me remind my colleagues and others what these promises include: To

support an Indian effort to develop a strategic reserve of nuclear fuel to guard against any distribution of supply over the lifetime of India's reactors. And if a fuel disruption occurs, to convene a group of friendly supplier countries to pursue such measures as would restore fuel supply to India.

Article 2, section 2 of the agreement adds that the scope of cooperation under the agreement may include the development of that strategic reserve. These promises could give the appearance of undercutting U.S. actions under the Atomic Energy Act if India were to conduct a nuclear test.

So let me ask you, and I think Senator Lugar referred to some of these already in his opening comments, let me ask several of them here and ask you to respond and come back. What is the legal effect of including these assurances in the agreement? If those assurances have no legal effect, then why are they included in the agreement at all?

What will the United States do to help India create its strategic reserve of nuclear fuel? Does the Government of India agree that those assurances are not legally binding? And if so, has it said so in public? And if the assurances are only a political commitment, which is what was raised, again, by Senator Lugar, what does that political commitment mean?

Would you address those issues?

Secretary BURNS. Sure. I will start, and then I am sure John Rood will want to add a little bit. First, the commitments that the President made that are recorded in the 123 Agreement are firm, solemn commitments on the part of the President——

Senator DODD. Are they legal commitments, or are they political?

Secretary BURNS. As we made clear, the President made clear in the transmittal letter, they are political commitments.

Senator DODD. Are they binding on additional administrations, come January 20?

Secretary BURNS. They are a political commitment, sir, in the sense that we are determined to help India to try to ensure a reasonable, steady supply of fuel. And should disruptions arise, for example, trade disputes, a commercial firm fails to meet its requirements, then we are firmly determined to do everything we can to help in that instance.

But we are determined to meet those commitments to the fullest extent consistent with U.S. law. And so, any President would be bound by U.S. law, just as you have described, and I believe that the Indians understand the clarity of our position.

Senator DODD. Have they taken a public position reflecting those assurances that you are aware of?

Secretary BURNS. With regard to their understanding that our actions are going to be guided by U.S. law and will be consistent with U.S. law, I believe the Indians do understand that.

Senator DODD. Forgive me if I am maybe asking a naive question here, but a political commitment and a legally binding commitment, there are those of us here that are having some difficulty understanding the distinction. These are political commitments. To what extent are they legally binding?

Mr. ROOD. The President has made political commitments, Senator, in his statements and in the agreements that we have struck with the India Government.

Senator DODD. I understand that.

Mr. ROOD. And so, the 123 Agreement provides a legal framework. It is an enabling piece of agreement, which allows for cooperation to occur. It does not compel American firms, for instance, to sell a given product to India.

And so, in some of the scenarios that were mentioned, some of the opening statements, such as a nuclear test, for example, the 123 Agreement preserves our right, as required under the Atomic Energy Act, for the United States to terminate cooperation and to seek the return of materials if we judge that to be the appropriate course of action at that time.

There are separate pieces of U.S. legislation which are amendments to the Atomic Energy Act that would contain requirements for any future President or administration to follow. Section 129 of the Atomic Energy Act does have a—provides some flexibility for the President and the administration to determine the circumstances at that time. And should there be a determination by the President that a cessation of cooperation would be seriously prejudicial to our nonproliferation objectives or undermine or jeopardize our common defense and security, then the President would have the authority under the present statute to waive that restriction.

Senator DODD. Well, let us assume we are able to have this agreement come into force this year. Let me ask you the following. Would the President, this President be obligated to help India acquire a nuclear fuel reserve sufficient to enable India to ride out any international sanctions as a result of a nuclear test? Would he be required to do that, legally required to do that under this agreement?

Mr. ROOD. What we have agreed to do is aid India in the creation of a strategic reserve.

Senator DODD. Is he legally required to do that under this agreement?

Mr. ROOD. The President has made a commitment to do that. The agreement, as a legal matter, is, as I say, only an enabling piece of legislation. We in the United States Government—for instance, it is not a Government activity to produce nuclear fuel. It is a commercial activity in the United States, and we in the U.S. Government could not legally compel American firms to provide fuel to India if they did not wish to do so.

Senator DODD. Let me take it a step further. If India were to buy some U.S. nuclear fuel in October, next month, and then let us say they conducted a nuclear test in November. Would President Bush feel obligated to help India find alternative fuel sources to replace the supply that we would very likely cut off pursuant to section 129 of the Atomic Energy Act? And if not, why not?

Mr. ROOD. What I would say, Senator, is that we would have to evaluate the set of circumstances, of course, that existed at that time. India has made a commitment, most recently reiterated just on September 5, to maintain a unilateral moratorium on nuclear

testing. So we do not expect that India would conduct a nuclear test.

In the hypothetical that you raise, we would evaluate the circumstances that exist at that time. There are restrictions embodied in the Atomic Energy Act that would require the President to make certain determinations. If the President determined that nuclear cooperation with India should be terminated and, for instance, if we in the United States Government then moved to terminate the 123 Agreement, it would not be consistent with that spirit for us to encourage other countries to supply nuclear fuel if the United States did not.

Senator DODD. This is not purely hypothetical. There still is a residue of bitterness over the Tarapur case going back. And the reason I raise this is because I am fearful that we may be setting ourselves up for the same reaction.

One of the arguments I made in favor of going forward, albeit with some reservations, is from the geopolitical perspective this is an important relationship between our two countries. I think most of my colleagues appreciate that there is a strategic issue involved in all of this.

But I don't want to see us setting ourselves up to duplicate the very situation that contributed to a generation and a half of bitterness as a result of our relationship. And I am worried that by not being clear on this very point, raising the specter with India of how we would act because it is only a political commitment and not a legally binding one, that we run the risk of engendering that same kind of bitterness that persists today.

Why shouldn't I be worried about that?

Secretary BURNS. Mr. Chairman, that is a very good question, and it is a quite legitimate concern. And certainly in the course of negotiations over recent years there has been a lot of concern devoted to this issue and a lot of differences from time to time as we and our Indian colleagues have tried to work through these issues.

One of the reasons that the distinction between legally binding and politically binding has created such attention in India and the Indian media today, I think, has to do with the concern that somehow the firm Presidential commitment that has been made to try to provide that steady supply of fuel is undermined by what we think is an artificial distinction when we are talking about a firm commitment.

What is very clear is that we will do everything we can to ensure that steady supply, except in extreme circumstances. And in those extreme circumstances, which John mentioned, when you are talking about the kinds of things under U.S. law, whether it is a test or an abrogation of a safeguards agreement, then our actions will be bound by U.S. law. And I guess that is the clearest way that I can put it.

Senator DODD. Well, I appreciate that. Let me turn to Senator Lugar.

Senator LUGAR. Mr. Chairman, just continuing to follow on this issue for a moment. Just yesterday, an official from India's Department of Atomic Energy was quoted in an Indian newspaper as saying, "It is up to the U.S. to resolve its internal legal and political obligations, but India should be assured of continuous fuel supply."

The same official also said, "We want the U.S. to make it clear about the continuous supply of fuel as the congressional voting is fast approaching."

Now when the Indians talk about continuous fuel supply—and obviously, we have dwelled on this for a while—they feel this is the heart of the agreement. First of all, I am a little bit confused about the legal aspect, as opposed to a political commitment. But let us say, as a practical matter, that for some reason we decide to terminate their supply of fuel. Are we agreeing in this 123 Agreement then to help them get fuel from some other countries? In other words, what is the nature of our obligation in this situation?

Mr. ROOD. Senator Lugar, in the construction of the 123 Agreement, we were conscious of the history of the United States-India relations with respect to Tarapur and other matters. But what we have agreed to do is because of the Indian sensitivities in this area is to help them maintain a steady supply of fuel.

And what we have in mind are things such as, for some reason, that there should be a market disruption, some form of trade war, or something beyond India's control that would interrupt their supply of nuclear fuel, which again will supply a much larger percentage of India's overall energy and according to the Indian Government's projections. So, based on that, we would help in the U.S. Government. We have made a commitment to help in that regard.

Should India take an action such as a nuclear test, we would again turn to the Atomic Energy Act to be our guide as to what the administration's obligations would be. And if we chose to terminate the 123 Agreement, as you mentioned, the U.S. would have the right to do so under the terms of the agreement. We would have the right to seek the return, to have the return of any equipment supplied and fuel supplied to India. And at that point, that would be the nature of the U.S. commitments.

Now, as I mentioned, I think it would be inconsistent with a President's decision to terminate United States supply of fuel to then seek the supply from other countries of fuel to India.

Senator LUGAR. Well, let me pursue another question. This is sort of a housekeeping matter in a way. But Title II of the Hyde Act was titled "The U.S. Additional Protocol Implementation Act." Now despite its passage 2 years ago and despite the Senate's ratification of the agreement in March 2004, just weeks after President Bush asked the Senate to provide advice and consent, the administration has not yet brought our additional protocol into force.

I have sent several letters to the Secretary of State and a letter to both State and Defense on this matter. And we have asked many times why the situation is unchanged, only to be told that you continue to have difficulties in achieving this for President Bush.

Now will the U.S. additional protocol enter into force before the end of this year or even during the remaining weeks of the President's term in office?

Mr. ROOD. Senator, with respect to the additional protocol, of course, that is something that we are—we in the administration continue to work to bring into force for the United States. It is something that we at the State Department view ourselves as the engine for within the administration, trying to pull that matter across the finish line.

The implementation of the U.S. additional protocol, of course, most of the activities will be accomplished by the Departments of Energy and Departments of Defense. And so, we continue to work very closely with our colleagues there to try to implement that agreement. We would like to do it as soon as practical, and it is something that, as I say, we continue to work closely with those other departments to try to urge them to complete the activities necessary to allow us then to bring that agreement into force.

Senator LUGAR. Well, is it a priority for this administration? In other words, Title II of the Hyde Act is titled "The U.S. Additional Protocol Implementation Act," and it provides you with the authority you need to complete the ratification process. But as you say, after years, it still hasn't been implemented. And you are trying awfully hard in the last few days to get it done.

I am just confused as to where it is and why we have had such a problem.

Mr. ROOD. With respect to the additional protocol, of course, as the Defense Department and Department of Energy begin the preparations to put certain facilities under safeguards, there are preparatory activities that they have indicated they need to complete.

Again, we meet regularly with our colleagues. We work closely as an administration with the other departments, from the State Department, to try to encourage the completion of those activities that will, therefore, enable the United States to bring the additional protocol into force and apply safeguards more widely in the United States.

But the issues are those of implementation, Senator, with respect to the activities of these particular departments.

Senator LUGAR. Well, I will let it rest there. This is a pretty tedious problem for the administration. Month after month, week after week, striving to get there and haven't quite got there, and the question is whether you make it by the finish line. One would not be optimistic hearing this report, but we will leave it at that.

Hopefully, a lot of things are going to happen in a few days, or nothing is going to happen at all. And I think you both recognize that, and that is why you are here today, and that is why we are here.

Well, let me ask one final thing. Article 6 of the proposed 123 Agreement says the two parties grant each other consent to reprocess nuclear material but appears to make that consent contingent on India establishing a dedicated facility to carry out such reprocessing and on future agreements on arrangements and procedures under which the reprocessing in this new facility would take place.

Is it correct that under this provision, reprocessing of nuclear material cannot take place unless and until the arrangements to which it refers have been concluded? And have these arrangements and procedures been concluded? And does the executive branch intend to submit these arrangements and procedures to the Congress for approval prior to their entry into force and the commencement of reprocessing?

Mr. ROOD. Senator, I believe the answers to your question in order are yes, no, and yes. The first question, if I have got you right, was whether the agreement would, in fact, require India to

establish a dedicated facility for reprocessing under IAEA safeguards, and the answer to that is yes.

On the second question, has the administration already completed negotiations on an agreement that would contain those practices and procedures with India, the answer is, no, we have not.

And the third question, would those be submitted to Congress? And the answer is, yes, that is required under the Atomic Energy Act.

Senator LUGAR. Thank you. Thank you, Mr. Chairman.

Senator DODD. Thank you very much, Senator Lugar.

Senator Kerry.

Senator KERRY. Thank you, Mr. Chairman.

Thank you, Mr. Secretary and Mr. Rood, for being here today.

I was in India at the time that this agreement was first announced, and I have been supportive of the fundamental direction of it from that moment to this day, though I still have some clarification issues that are of concern. But I want to say a few things about the support for it or the fundamental direction.

I voted for the Hyde Act in December 2006 after some significant nonproliferation concerns were addressed because, as you have said here today and others have said, I viewed this as a very important way to strengthen the partnership between the world's oldest and largest democracies.

I am inclined to support the negotiated agreement, but I want to look for some of these clarifications despite some lingering nonproliferation worries because of the importance of this emerging strategic partnership between the United States and India. And this deal will also help India meet its growing energy needs without relying as much on technologies that are unbelievably damaging to our environment, and that issue rises in urgency with respect to national security concerns.

But make no mistake. I have said previously and I still believe that this is not the best agreement that should have initially been brought out in this negotiating process from a nonproliferation perspective. You can't go backward. It is where we are, and it is what we are dealing with. But I think it is really important for all of our colleagues on this committee to recognize the significant importance of bringing India into the nuclear mainstream, given its longstanding status outside the Nuclear Non-Proliferation Treaty regime.

The bottom line is that we are better off with that than without it. But there are legitimate questions about whether this step will make it tougher to strengthen the global consensus against Iran's and North Korea's nuclear activities. That said, we can't lump India, a responsible democracy that plays by international rules and has a strong record of responsible stewardship of nuclear technology, in with those countries that have either outlaw or uncooperative governments.

I hope and expect that this nuclear deal is going to open the door for greater cooperation with India on nonproliferation issues. Despite its own arsenal, India has long supported the goal of a world without nuclear weapons, a dream articulated now not only by Mahatma Gandhi, but it is shared by both of our Presidential candidates in this race.

The new President should urge the Senate to ratify a treaty banning nuclear weapons testing, and then encourage India and its neighbors to sign that treaty and agree to a moratorium on producing nuclear weapons usable material.

Ever since India's Smiling Buddha nuclear weapons test almost 35 years ago, its nuclear program has been an enduring obstacle to stronger United States-India friendship. So I do believe the time has come, for a lot of different reasons, to start a new chapter in our relations with a crucial new ally.

We can't lose sight of one thing, deal or no deal. We can't allow this agreement to become a referendum on the future of United States-India relations. Not when our interests and our ties are more closely aligned than ever before. From ensuring no single country dominates Asia, to providing a diplomatic partner to strengthening stability and fighting extremism in a turbulent region, to developing innovative approaches to a planet in peril, India today matters as never before.

Like any allies, India and the United States will continue to have differences, from India's ties with Iran to trade. Parts of India's older generation might sometimes advocate policies at odds with our own to preserve India's strategic autonomy, while some younger members of left-leaning parties may remain ideologically at odds with us.

But make no mistake. India and America will increasingly see eye-to-eye on the issues of the 21st century. With or without the symbolic centerpiece of a nuclear deal, India should be among America's closest friends in the decades ahead. And the test for American foreign policy will be to bring our governments together to reflect the shared values, shared threats, and ever-deepening ties between our two economies and countries.

Now, let me turn, if I may, to those points of clarification. Mr. Secretary, section 104(b)(1) of the Hyde Act requires the President to certify in terms of the waiver authority and congressional approval, and you are familiar with it. Fairly detailed, the determination referred to is the determination by the President the following actions have occurred.

And it is specifically that they have provided the United States and the IAEA with a credible plan to separate civil and military nuclear facilities, materials, and programs and has filed a declaration regarding its civil facilities with the IAEA. You are suggesting that the report submitted by the President—that the separation plan actually does that.

I have that plan here. With respect to Paragraph 14 that you referred to, I find it hard on its face to see that it actually satisfies the credible plan for the separation. And I am concerned that it is going to be important for us to be able to gather the consensus here that we have an adequate satisfaction that the agreement negotiated conforms to the Hyde Act in that respect.

Secretary BURNS. Thank you, Senator. Let me start in trying to answer your question, and Dick Stratford may want to add to it. It is our judgment, as reflected in the President's determination, that the separation plan that, as you said, has been presented to the IAEA and the United States——

Senator KERRY. Can you show me where it appears in here, in the document?

Secretary BURNS. Dick, why don't you——

Senator KERRY. In the communication dated July 25?

Mr. STRATFORD. Senator, the separation plan is included in the package that was submitted by the President. And if you turn to page 97 in the full package, you will be looking at paragraph 14 of the separation plan.

Now I should say that the phase "declaration" was not used by India until it was written into the safeguards agreement that was just approved, but in IAEA parlance, there is no such thing as a declaration in the context of a safeguards agreement. It is something else.

When we took a look at the separation plan, what we find is that it talks about how it is going to separate its civilian and military sides of the program. Now what you want from a declaration is what facilities specifically are you going to put under safeguards and when. And if you go to 14, you find a specific list of the reactors that will go under safeguards and when, but it is an outdated list. But they are going to maintain the end date.

In other words, they said all the reactors that would go under safeguards would be under safeguards by 2014, and they stand by that. If you then continue on through page 98, et cetera, what you see is——

Senator KERRY. Well, let me interrupt you for a minute here.

Mr. STRATFORD. Sure.

Senator KERRY. I am following you. But I am not sure many people are, and it seems to me that it would be a lot simpler just for the President to comply and certify and give us a single certification with an up-to-date list that answers the question of the credible plan, that we are satisfied that the plan is credible. That is what it has to say to us.

We shouldn't have to look at this and draw it out of you through a series of questions. The President, under the Hyde Act, is supposed to certify to us that, in fact, this is a credible plan and that it is on file with the IAEA. And that is the requirement. Why doesn't it do that?

Mr. STRATFORD. Because, Senator—because I think, Senator, actually what Hyde says is that the President needs to certify that India has filed a separation plan and a declaration with the IAEA.

Senator KERRY. Correct.

Mr. STRATFORD. What India did in, I think it was July, was to take the separation plan, hand it to the director general and say what we are going to put under safeguards precisely and when is in paragraph 14 of this document, which we already submitted to parliament. So this, in effect, would you please circulate this?

So, in our judgment, that portion of the separation plan, which they did give to the agency and ask to be circulated, serves as the mechanism for——

Senator KERRY. That may well be, but why then, again, not simply have the President certify India has done it, rather than using a reference document as the certification? It is sort of simplistic. It seems like we are going around in a circle here.

Mr. STRATFORD. I think we may be using different words for the same thing. I think we——

Senator KERRY. Well, I am not sure because it may be that there is an accountability there that comes with one thing, which is what the Hyde Act envisions. And if you are leaving it to someone else and some other document, you are not taking accountability. We put it there for a purpose. We want to know that you are certifying it, that it is a credible plan.

Mr. STRATFORD. Senator, I——

Senator KERRY. So I just—let me leave that with you——

Mr. STRATFORD. Fine. Fine.

Senator KERRY [continuing]. For consideration, and let us see if we can work that through.

Let me ask you also, because time is about up, Prime Minister Singh has said that India would take on "the same responsibilities and practices as other leading countries with advanced nuclear technologies such as the United States."

Specifically, India has agreed to identify and separate civilian and military nuclear facilities, declare its civilian programs to the IAEA, sign an additional protocol for civilian facilities, continue its unilateral nuclear test moratorium, work with the U.S. to sign the Fissile Material Control Technology, refrain from transferring enrichment and reprocess technologies, support comprehensive export control legislation, and adherence to the Missile Technology Control Regime and NSG guidelines.

Now that is all very comprehensive. It is one of the reasons why I think this is stronger than some people may think. But I want to make certain that you have sufficient confidence that these nonproliferation safeguards are adequate and enforceable and accountable.

Secretary BURNS. Yes, sir; we do. And we have worked through each of those issues very carefully with the Indians, working closely with the IAEA, with the Nuclear Suppliers Group. It has taken a long time. It has been a painstaking effort, but we agree with you. This is a significant step. It doesn't make for a perfect agreement, but it is a significant step. And we are confident——

Senator KERRY. How do you guarantee that it is not just a transfer of the saved fuel that now goes off into weapons and, therefore, becomes a weapons enhancer?

Secretary BURNS. Well, sir, certainly India, with or without this initiative, has the capability to sustain its nuclear weapons arsenal. India has made very clear to us privately and publicly that it subscribes to the concept of a doctrine of a credible minimum deterrent. It has made very clear to us that it has no intention or plan of significantly increasing its nuclear arsenal.

What it clearly does have the intention of doing is significantly increasing its civilian nuclear capabilities. And so, it is our judgment, as John has described before, that by taking this step and significantly increasing the proportion of reactors and facilities and materials that will be covered by IAEA safeguards, that is a fairly important stride. And that it will also increase the incentive, in our judgment, for the Indians to focus on increasing that civilian nuclear program.

Senator KERRY. Thank you.

Mr. Chairman, I want to thank you for the extra time, and my colleagues. I appreciate it.

I will just close by saying that the next President, whoever it is, is going to have an enormous opportunity here, I think, to build on this relationship in order to take advantage of that predisposition not to engage in—and of their past history of not expanding.

But I think there needs to be, and Senator Lugar has worked hard on this through the years, a massive new commitment to the, you know, the counter proliferation/testing ban/efforts. I mean, the nuclear issue has to be much more front and center in the next administration.

Senator DODD. Thank you, Senator.

Senator Corker.

Senator CORKER. Thank you, Mr. Chairman.

I appreciate your testimony and the work that you all have done on this. I do continue along the same lines to be a little bit confused about some of the structures that are set up to ensure that safeguards are properly in place and there is no intermixing.

Let me ask, what is the advantage, again, and why would we go about a phased safeguard approach? I mean, I realize at the end of the day, that there's a lot of things that are driving this besides non-nuclear proliferation, and sort of, the tail is wagging the dog, and we've sort of gotten what we could get, here, I understand that.

But, what is it—why is it to their benefit to do it over a phased amount of time?

Mr. ROOD. Senator, the—during the negotiations on the separation plan, the Indian Government wanted time to phase out the implementation of IAEA safeguards at additional facilities in our schedule, to allow them time to prepare, to spread out the expense of bringing those additional facilities under safeguards over a longer period of time. And it was just a means by which they argued to us that they should be permitted to implement this in a gradual manner, as opposed to a date certain for all facilities, when those would be put.

Senator CORKER. But, big expense in that? I mean, the benefits of having these materials seems pretty large. There is a large expense in bringing these under proper safeguards?

Mr. ROOD. There's some expense required, only in that you need to provide declarations, you need to have people trained and have a system in place by which material is accounted for in very small quantities and other matters are done.

We obviously favor this. I don't mean to come across as saying this isn't a reasonable thing to ask countries to do, we encourage them to do it, and the Indians have safeguards on some facilities today, but this was substantially, as I mentioned, increase the facilities placed under safeguard. So, it's just a phased implementation toward that.

But there is an incentive, which is, until facilities are under safeguards, international cooperation, such as the sale of fuel to be used in a reactor, would not be possible. So, there is a—the system encourages India to place facilities under safeguards, earlier rather than later.

Senator CORKER. Let me read a question, in 2007, the Chairman of the Indian Atomic Energy Commission answered the question—how will the separation of civilian and nuclear facilities from their military counterparts affect the organizational structure of the Department of the Atomic Energy, by stating, "The structure remains the same. We are identifying specific plants as civilian, and they will be put under safeguards. There is no need for any change in the organizational structure. This is true in all countries—only one government Department looks after the entire atomic energy activity."

In response to a question posed on April 6, on the same subject, Secretary Rice stated, "While the specific issue of the Department of the Atomic Energy personnel has not been discussed in detail, we would consider routine, frequent rotation of personnel between civil and military programs as being inconsistent with Indian commitments on the separation of civilian and military facilities. In our view, such a rotation would be inconsistent with India's commitment to identify and separate civilian and military nuclear facilities and programs."

We have made this position clear to the Indian Government. Since India is likely to continue a permit routine frequent rotation of personnel between civilian and military program, is India's separation plan credible in this area, and how can we work with India to achieve proper separation in that regard?

Mr. ROOD. With regard to India's separation plan, they've—as I mentioned—identified the facilities and the activities associated with those facilities that will, therefore, be under IAEA safeguards.

We do have confidence that the facilities placed under IAEA safeguards, that that will be an effective means to prevent diversion to a noncivilian purpose.

With respect to how the Indian Government organizes itself in order to implement that, I would note that personnel associated with running a particular reactor program or particular set of activities, generally are specialists in a particular activity. And so, if they work at a safeguarded facility that's devoted to a particular purpose, we would expect they would continue in that regard. There will be some obvious movement of personnel.

But IAEA safeguards on a particular facility, and those that will be applied in India, are the type applied elsewhere in the world, we do think are effective as a means to prevent diversion.

In addition to the IAEA safeguards, of course, the additional protocol, which is under negotiation, will provide additional authorities to the IAEA, and greater ability to monitor against diversion.

Senator CORKER. It seems like a pretty difficult thing to me, to ensure, and I appreciate your explanation.

I've got to be two places at once, like we all do, most of the time. I want to ask one last question, I have a few minutes left, and I might not hear the complete answer, but—you know, I'm here constantly looking for consistency in what we do, and I am consistently disappointed.

So, I guess as we look beyond this agreement—and I know that all of you have worked very, very hard on this—to Pakistan, to Israel, to other folks that we have relationships with in this regard, and then folks that we wish not to pursue these kinds of activities.

How does this, when you step back away from the deal at hand, if you will, how does this affect us, going forward?

Secretary BURNS. Well, let me take a stab at that, Senator, because it's a very good question.

I think, you know, what has compelled our interest in India and driven this effort of the Civil Nuclear Initiative have been a number of factors—first, the strategic importance of India, but also, the fact that here you have a country whose economy is growing very fast, whose energy needs are growing very fast, and whose impact on the global environment can be enormous, for better or worse. And that creates a kind of unique challenge that the expansion of clean, civil nuclear energy can help address.

Finally, I think you have, in the case of India, an instance where a country that, for decades has been outside the mainstream of the nuclear proliferation regime, has nonetheless maintained an admirable record of ensuring that sophisticated technology was not seeping away in the direction of other countries or other groups.

And so it's, I think, all three of those factors that we've tried to address in this painstaking effort to produce this initiative, and also to produce the exception and the nuclear suppliers group. And that was an exception that we focused on India, not looking to set a precedent for anyone else.

Senator CORKER. I yield the rest of my time. And thank you for your testimony.

Senator DODD. Thank you, Senator Corker.

Senator Feingold.

Senator FEINGOLD. Thank you, Mr. Chairman, this is obviously a very important hearing, so thank you for holding it.

And Secretary Burns, I also appreciate your willingness to come back to the Senate, after seeing you yesterday on Russia and Georgia.

Good to see you, Secretary Rood and Mr. Stratford.

When we debated the United States-India Civil Nuclear Cooperation Agreement 2 years ago, I noted my concerns that it would dramatically shift 30 years of nonproliferation policy. Without question, our relationship with India is one of the most important in the region, and in the world, and is absolutely critical to building a secure, stable, and prosperous global system.

But, I still am concerned that this agreement does not have adequate protections to guard against the spread of nuclear weapons, and nuclear technology.

After reviewing this unprecedented deal—including, once again, the supporting classified documents, which I recommend all of my colleagues take a look at, and after discussing this agreement with senior Indian Government officials on a recent trip to India—I am still concerned that this deal seriously undermines nonproliferation efforts, and could contribute to an arms race that would have global implications.

I think we could have crafted a deal that would have benefited our national interests, as well as India's, but if Congress approves this deal in its current form, I believe we will not have done that.

In late August, the members of the Nuclear Suppliers Group attempted—attempted—to reduce the negative impact of this agreement on their ability to prevent the spread of sensitive nuclear ma-

terials, but the administration succeeded in overcoming those efforts.

Congress now has a choice—approve this deal in its current, flawed form, or require the administration to seek nonproliferation measures to try to ensure we don't undermine the coalitions that we all know we've meticulously put together over the last 30 years.

The proliferation of nuclear technology, know-how and material is one of the top national security threats we face. While India may share a desire to control the spread of nuclear weapons, by undermining international standards this agreement may actually contribute to that threat.

Now, I remain concerned that this agreement could indirectly benefit India's nuclear weapons program, and potentially contribute to an arms race in the region. Isn't it true that, by opening the door to providing nuclear supplies to India, we are freeing up local fuel supplies for India's weapons program?

Secretary Burns.

Secretary BURNS. Senator Feingold, as I said before, I think we're guided by a couple of different facts.

First, the Indians have made clear that they intend to continue to subscribe to the doctrine of credible minimal deterrent. They have made clear that they don't have any intention of significantly increasing their nuclear arsenal, where they clearly do have an intention is to increase their civilian nuclear program. With or without the initiative that we've put before you today, that you've so carefully considered, the Indians clearly have the ability to sustain their nuclear arsenal, and even expand it over time.

Our judgment is, that by taking this step, we're creating an even greater incentive to focus on civil nuclear energy. We're vastly increasing the range of facilities and materials in India that are covered by IAEA safeguards, and in that sense, we're making with the Indians, a positive contribution to nonproliferation.

But there's no perfect answer to your question, because there—there does remain an Indian nuclear weapons program, there does remain the capacity not only to sustain it, but to expand it over time.

Senator FEINGOLD. I understand your point, and what you said about India's intent and India's pledge that any U.S. assistance to its civil nuclear energy program will not benefit its nuclear weapons program, and it's committed itself, as you noted in your testimony, to follow the same practices as responsible nations, to follow those practices. But how can we be fully assured of any commitment? I mean, India had previously claimed it was using nuclear technology for civilian purposes, right up until the time it tested in 1974. What kind of assurance do we have?

Secretary BURNS. Well, sir, there's no perfect guarantee, as you know, but our conviction is that by moving in this direction, we're deepening the incentive for India to focus on civilian nuclear energy, and deepening its incentive to continue to move into the mainstream of the nonproliferation regime.

But, to be honest, and to answer your question, there's not perfect guarantee.

Senator FEINGOLD. Well, I appreciate your candor.

Secretary Rood, you testified that India has submitted a document with the IAEA that satisfies the requirement of the Hyde Act that India submit a declaration of its facilities in order to ensure that international—international assistance—does not benefit India's weapons programs.

Isn't it true, however, that India has negotiated an agreement with the IAEA which provides that the final declaration will not be submitted until the safeguards agreement has entered into force, and this has not yet occurred?

Mr. ROOD. The Indian Government, in 2006, published a separation plan, that is, a plan to separate its civilian facilities from those related to its strategic program. Since that time, the Indian Government has negotiated an IAEA safeguards agreement, and they have transmitted their separation plan to the IAEA Director General, which has then been transmitted to the IAEA membership.

The Indian Government stands behind their separation plan, and that plan for the phased application of safeguards is—constitutes India's indication of how it plans to declare facilities as civilian.

Senator FEINGOLD. But the final declaration has not been submitted, is that right?

Mr. ROOD. The separation plan, because it was concluded in 2006, will need some updating, but the list of facilities, as Mr. Stratford mentioned earlier, that will be subjected to safeguards, and the phasing remain operative.

Senator FEINGOLD. Is it your intent to authorize licenses pursuant to the United States-India Cooperation Agreement before India files the legally required declaration?

Mr. ROOD. IAEA safeguards would need to be in place at a facility before we would allow for the export of material from the United States to that facility. Therefore, for IAEA safeguards to be enforced, the agreement that you reference would need to take effect.

Senator FEINGOLD. So you would not authorize licenses prior to that?

Mr. ROOD. Because there would need to be IAEA safeguards in effect.

Senator FEINGOLD. Secretary Rood, does India have a legally binding commitment to include all of the facilities it announced as civilian in 2006 in the declaration?

Mr. ROOD. Your question was, does India require——

Senator FEINGOLD. Does India have a legally binding commitment to include all of the facilities it announced as civilian in March 2006 in the declaration we just discussed?

Mr. ROOD. Do you want to take that?

Mr. STRATFORD. Senator, the answer to that would be no.

The declaration will be made after the safeguards agreement comes into force, our understanding is, is that the declaration will be the same facilities, in the same timeframe, as was included in the separation plan. But, that's not a legally binding commitment, and when the safeguards agreement enters into force, ultimately, it will be up to India, what it submits to safeguards, and when.

Senator FEINGOLD. And is there a document that you can provide to the committee with—in this regard, at this time?

Mr. STRATFORD. The document that we would provide would be the separation plan, and specifically point you to paragraph 14, that's included in the President's submission package, but we can certainly get you a clean, more readable copy.

Senator FEINGOLD. All right.

The provision of enrichment or reprocessing technologies by any member of the Nuclear Supplier Group could also directly benefit India's nuclear program, as safeguards do not prevent the transfer of people and knowledge.

A recent Washington Post article suggested that the State Department gained assurances that none of the members intend to do so, however, that wasn't a binding commitment either, was it?

Mr. ROOD. Senator, at the Nuclear Supplier's Group meeting which concluded on September 6, during those discussions there was a substantial amount of discussion with respect to enrichment and reprocessing sales. None of the countries that were present at that meeting indicated a desire to, or plan to, supply those technologies to India.

Senator FEINGOLD. But it's not a binding commitment, right?

Mr. ROOD. That was a statement of their intentions.

Senator FEINGOLD. So, it's not a binding commitment?

Mr. ROOD. Yes; that's right.

Senator FEINGOLD. France has indicated it would consider a request to provide reprocessing technologies to India. The only way to prevent this is to get an agreement from all the NSG members not to provide such technologies.

Secretary Burns, and Secretary Rood, do any members of the NSG oppose banning transfers of enrichment and reprocessing technologies to nations like India, that are not members of the Nuclear Nonproliferation Treaty?

Mr. ROOD. Yes, would be the answer to your question.

Senator FEINGOLD. They all—?

Mr. ROOD. You asked, did any members of the nuclear suppliers group indicate——

Senator FEINGOLD. Any oppose——

Mr. ROOD [continuing]. Opposition to the supply of enrichment reprocessing technologies to countries that were not members of the NPT?

Senator FEINGOLD. Some do oppose it? The banning?

Mr. ROOD. Yes.

Senator FEINGOLD. And who are they?

Mr. ROOD. I would prefer to provide that answer to you in closed session. The NSG membership rules indicates the discussion is supposed to be confidential.

Senator FEINGOLD. I appreciate that. Thank you, gentlemen, thank you, Mr. Chairman.

Senator DODD. Thank you very much, Senator.

Senator Barrasso.

Senator BARRASSO. Thank you very much, Mr. Chairman.

In this morning's Washington Post, there was an article, "06 Blueprint Leak Intensifies Concerns over U.S./India Deal," I don't know if you've had a chance to see the article yet, but it says, "In January 2006, an Indian Government agency purchased newspaper ads seeking help in building an obscure piece of metal machinery.

The details of the project available to bidders were laid out in a series of drawings that jolted nuclear weapons experts who discovered them that spring. The blueprints depicted the inner workings of a centrifuge, a machine used to enrich uranium for nuclear bombs. In most Western countries, such drawings would have been considered secret, but the Indian diagrams were available for a nominal bidding fee. . . .'' And the person who was able to buy the diagrams paid about $10.

Are we concerned about leakage of nuclear secrets if an agreement like this goes through, and what do we do to prevent it from happening?

Mr. ROOD. Senator, we've seen the press article that you reference, and of course the underlying report from an institute called ISIS.

We obviously take very seriously the subject matter, and the examples that were cited. We were aware of these at the State Department prior to the publication of that article. I would say, the Indian Government has taken significant steps to strengthen their export controls since 2005.

In 2005, you had the enactment of a landmark piece of legislation in India, which is a weapons of mass destruction law, and the subsequent implementing regulations, and the harmonization with the nuclear suppliers group and missile technology control regime guidelines are very significant. So, we've seen a significant improvement in Indian export controls and practices.

We obviously take very seriously this whole range of concerns, and indeed, no export control system is perfect. Under my area of the State Department, for instance, the political-military bureau enforces compliance with U.S. export laws, in part, and there are other agencies of the government that do, as well.

Regrettably, there are American firms which are fined by the State Department every year for violations of our export control laws. So, while we certainly want to encourage the Indian Government, and we believe they are taking greater steps to control their export controls, and we take this very seriously, there are no perfect systems, including our own.

Senator BARRASSO. In looking at this agreement, I see what we're trying to do is increase international nuclear cooperation between the United States and India and then deal with certain nations that do not want to cooperate on nonproliferation objectives. How do you view this whole relationship as helping develop increased international cooperation?

Secretary BURNS. Well, sir, I think the various steps that India has committed itself to, and that it's moving ahead on, I think, help on the nonproliferation regime, and in other areas, as well. For example, we've talked about the danger of the spread of enrichment and reprocessing technology of countries who decide that they need to master the fuel cycle, which is a huge challenge—not just in Iran in North Korea—but potentially other parts of the world.

Indian's willingness to commit itself to work actively with Mohamed ElBaradei and that IAEA on the concept of international fuel banks, which Senator Nunn, and others, have worked on over the years, I think, is an important step forward and shows an Indian willingness to work with us, and work with the IAEA to help

stop, or fill, one of the major gaps that exists in nonproliferation regime today. So, that's just one example.

Senator BARRASSO. Do you also see economic benefits that could come as a result of this, and talk about that a little bit?

Secretary BURNS. Yes, sir; as I mentioned in my opening statement, I mean, there are economic benefits, I think, for both India and the United States. For the United States, where American firms, I think, are going to be able to compete on a level playing field in the civilian nuclear industry, where they have a lot to bring to bear, and I think you can see a creation if, for example, even two of the new reactor projects go to American firms, you'll see the creation of a minimum of 3 to 5,000 direct jobs in the United States, and 10 to 15,000 indirect jobs.

So, I think there's a clear economic benefit there, there's an economic benefit for India, there's a huge environmental benefit, I think, for all of us. As India's growing energy needs get addressed—not by coal and other forms of energy which can be deeply dangerous to the environment—but by cleaner methods like nuclear energy.

Senator BARRASSO. Well, coming from a coal State, I'll agree with you on most of those, but you know we can do coal in a cleaner way, as well.

So, thank you very much.

Thank you, Mr. Chairman.

Senator DODD. Thank you very much, Senator.

Senator Boxer.

Senator BOXER. Thank you, Mr. Chairman, I really appreciate your holding this hearing. I do miss Joe Biden, but I think you're just doing great.

Senator DODD. I won't tell Joe.

Senator BOXER. Well, you can tell him.

Ambassador Burns, let me see, or Secretary Burns—I like this conversation about jobs and the environment. You know, the most jobs are through solar—putting solar panels on rooftops. And, we're doing it in California—it's safer than nuclear, but that's another subject.

I would ask unanimous consent to place in the record three documents.

Senator DODD. Without objection.

Senator BOXER. One is an editorial from the New York Times that says, "A Bad Deal, the nuclear agreement was a bad idea from the start. Mr. Bush and his team were so eager for a foreign policy success, they gave away the store. They extracted no promise from India to stop producing bomb-making materials, no promise not to expand the arsenal, and no promise not to resume nuclear testing."

Now, that's pretty much covers the core issues, but if I were writing the editorial, I would have said, "And no promise from India to stop military-to-military exercises with Iran."

The second two documents relate to the story that Senator Barrasso raised, the article that was in the paper regarding the blueprint leak, which is intensifying concerns over the United States-India deal—not on your part—but on some of our parts.

And also, the third is the full report by the ISIS, and the gentleman who got that document for $10 was David Albright, who's a former American U.N. weapons inspector.

So, I'm going to put those documents in the record, and I want to ask some questions, because Mr. Rood, you said, in answer to Senator Barrasso's good question that—and I wrote it down—that India has tightened up its security since 2005. Are you aware that this happened in 2006?

Mr. ROOD. There's been a process since the 2005 passage of the WMD export control legislation in India, in which India has continued to take steps to improve its export controls over that period.

Senator BOXER. OK, I just want to make sure you knew that.

Mr. ROOD. Yes, ma'am.

Senator BOXER. That this happened after 2005.

And then, also, you said, "Well, we are looking into this," and so on and so forth. Why is it that Mr. Albright said that he shared findings with State Department officials but was turned away? "It didn't fit with their talking points; at the highest level, they were dismissive of our concerns," Albright said.

Mr. ROOD. It's my understanding, Senator, that Mr. Albright and some of his colleagues did meet with officials at the State Department, it wasn't myself, personally, but there were other officials. Their characterization is that they took this information seriously that was provided, although as I understand it, there was a description of the information, there weren't any particular documents at that time provided by Mr. Albright and his colleagues.

Senator BOXER. Well, we do have the documents, and we're putting them in the record—the blueprints that were sold for $10, and the response from Mr. Albright to the way he was treated at the State Department, which I think, is not a good thing. And I would say that my colleagues may differ at the end of the day on this agreement, but I think all of us have expressed some concern in one way or another, about this agreement.

And so, you know, I'm not at all satisfied that you're taking this seriously. I know when you're trying to rush something through, it's a little annoying to have to listen to critics, but I think you're not dealing with any old thing here. You're dealing with the capability of a country to build more of an arsenal, and it's troubling.

Mr. Chairman, I don't feel any better about this deal then I did when the Senate passed the Hyde Act in 2006, because the two amendments that I wanted to see passed, here, of course didn't pass. Russ Feingold and I lost, and that's just the way it goes. It's, you know, we just couldn't get the votes.

One of those amendments was to make sure that this extra material couldn't be used to build more weapons. We wanted to make sure that we had that protection. Without that protection—and I think Senator Kerry pointed out that everybody is trying to get to this point—we can't be sure.

India says this and that, and listen, I have the best Indian-American community in the country—probably the largest—and I adore them, and I hear from them, and they want so much for me to be on the side of this agreement. I want our relations with India to thrive and prosper. But I also feel it's in everybody's interests to make sure we have protections in place—including India's, includ-

ing the people who live there, and people all over the world. When you see this blueprint, which would be secret in any other Western country being printed, and it has to do with building centrifuges, sold for ten bucks. It's a little alarming, and nothing that was said today gives me a sense that you take it very seriously.

And then, further, Mr. Rood, your comment like, "Oh, well, companies do this all the time and we don't like it." This isn't a company—this particular printing was done by the IRE, a subentity of India's Department of Atomic Energy. So, it's part of the government.

So, these two issues, Mr. Chairman, are very important. And you and I have talked about this. I've been very open—I would love to support this agreement with the addition of two amendments. The second of these amendments deals with the Iranian issue, to which India has responded, "Oh, how could anyone think we would ever have any military cooperation with Iran?" Well, if that's the way they feel, why don't they support an amendment that simply says they have to stop the military to military contacts? But they won't do it.

And I don't have to go into the threat of Iran. You know, I—it's disconcerting, giving some of the things Ahmadinejad has said, some of the things they're doing in Iraq, what they're doing in the Middle East, who they're supporting, and all the rest.

So, why not be able to have an amendment to this agreement that simply says, "Stop your military-to-military contacts with Iran?"

Why, Mr. Burns, couldn't we do that?

Secretary BURNS. Well, the first thing I'd say is, I absolutely share your sense of alarm about what the Iranians are doing in their nuclear program, and Iraq, and other areas—you're absolutely right, it's a serious threat to all of us.

Second, the Indian's record on this—and it's something on which we've differed from time to time, and that's what partners do, because there's an Indian interest in Iranian energy supplies, it's the core of their economic relationship, they've got a long and complicated history. There are contacts from time to time, low-level ones, between their navies, as you mentioned.

On balance, though, I think what you've seen from the Indians is a genuine concern about the dangers that are posed by the Iranians developing a nuclear weapons program. They voted twice in the IAEA Board of Governors, not only to criticize the Iranians, but to report their noncompliance with the IAEA to the U.N. Security Council, they have scrupulously complied with three chapter 7, U.N. Security Council sanctions resolutions against Iran.

So, no, Senator, it's not a perfect record, we don't see eye to eye on everything with regard to Iran, but I do think you've seen the Indians take steps that demonstrate their concern, and their opposition, to the development of a nuclear weapons program, a nuclear weapons capability in Iran.

Senator BOXER. Well, I would ask unanimous consent to place into the record, an article from Defense News, March 19th, 2007, "India-Iran Form Joint Group to Deepen Defense Ties."

Senator BOXER. If you're telling me you believe, and you trust, then we should verify. Ronald Reagan used to say, "Trust but

verify.“ All right? We trust them, yeah. So, what’s the problem with putting some of these things in writing?

I just hope that since you’re trying to rush this through, and waive the time requirement that Members of the Senate on both sides of the aisle would perhaps put a couple of more principles into this agreement, which would make many of us feel a lot better. Trust, but verify, and I think we’d all feel a lot better.

Thank you, Mr. Chairman.

[The articles submitted for the record by Senator Boxer are located on page 55 of this hearing print.]

Senator DODD. Thank you, Senator, very much.

Senator Webb.

Senator WEBB. Thank you, Mr. Chairman.

First, I would like to say, gentlemen, I have a number of concerns, I think you heard—particularly from Senator Corker, actually—about trying to find some consistency in foreign policy, and neither Senator Corker nor I were here in the Senate when these earlier pieces of legislation were voted on.

I certainly would agree that it’s important for us to deepen our relationships with India. I wrote a piece in the New York Times more than 10 years ago, talking about the best way for us to have some counterbalancing to the emergence of China in the region, and India, obviously, is one of the two or three most important countries.

And with respect to nuclear power, I would like to see more nuclear power plants built in the United States as part of a comprehensive energy plan that includes a lot of these other issues, I certainly wouldn’t have any hesitations about that.

But looking at this, and trying to sort out, the concerns that we’ve been hearing, for me, it seems to be the implications of India not having been a signatory to the nuclear nonproliferation agreements. And in effect, I think, this agreement potentially affects the way that we communicate with other countries around the world about the importance of the issue.

And so my first question would be, why? Why—what is it that has led India to refuse to sign this agreement?

Mr. ROOD. Well, the Nuclear Non-proliferation Treaty is, of course, a very important treaty, and one that we strongly support. But when we talk about the nuclear nonproliferation regime, we talk about a number of other elements being used to implement that regime, such as IAEA safeguards, and additional protocol. We are seeking things like a limitation on enrichment and reprocessing technologies that can be used to make the material for weapons, the Fissile Material Cutoff Treaty, for instance, is another instrument—not strictly speaking the NPT would be a separate treaty.

If you talk about all of those things, while India has not—and is, right now their position is they would not sign the NPT treaty itself—they have moved forward with an IAEA safeguards agreement. They have committed to conclude an additional protocol, they have supported various——

Senator WEBB. Yeah; but they have not signed the agreement.

Mr. ROOD. Not the NPT itself, but——

Senator WEBB. What is the justification that they use for not signing the agreement.

Mr. ROOD. The NPT, if India were to join, is what is defined as a non-nuclear weapons state. Of course, they would need to forego their nuclear weapons. India—while it doesn't meet the definition on the NPT as a nuclear weapons state, they obviously do possess nuclear weapons. So, it's their desire to retain the nuclear weapons capability that, of course, would be in conflict with the NPT treaty, itself.

Senator WEBB. Do we attach significance to this agreement when we are talking to other countries about nonproliferation?

Mr. ROOD. Yes, sir; we do. And we think on the whole is a net gain for nonproliferation, that India move greater——

Senator WEBB. No, but when we're talking to other nations. We do attach policy significance to the fact that there is this agreement, and that it's important for——

Mr. ROOD. The NPT?

Senator WEBB. Right.

Mr. ROOD. Yes, sir; we do attach importance to that.

Senator WEBB. How would you characterize our relationship with India. Are they an ally? Mr. Secretary, I've heard you use the word "partner."

Secretary BURNS. Yeah, I mean, I think like any partnership, we don't see eye to eye on every issue, we have differences over some issues, but I think there's a growing number of issues on which we work together and seek common ground, and I guess that's what I'd define "partner."

Senator WEBB. If I were to look at their foreign policy objectives it—from my understanding—their position is that they want to be a centrist nation, and be directly allied with no major power. Was that fairly correct?

Secretary BURNS. I think that's right. I mean, India—what's obvious, I think, just as you mentioned, India's emerging as a more and more important player, not just in it's own region, but in the world, and as it emerges, I think, the areas of potential common ground and potential shared responsibility are increasing, too, and that's what we're trying to keep our focus on. And that, I think, is the basis for an emerging partnership.

Now, that—again, as you said—is not the same thing as the kind of neat alliance in which we agree on every issue.

Senator WEBB. Right.

Secretary BURNS. But I think it suits our interests, I think it suits Indian interests, and more broadly, it suits global interests.

Senator WEBB. Well, just listening to some of the questions and the responses, it would seem to me that there are a lot of sovereignty issues that India bring to the table as to why they're not doing certain things, because they want to maintain independence and international relations. For instance, there's a question from Senator Boxer about military-to-military relations with Iran—that's a sovereignty issue, and I would assume that's one of the reasons that they have taken a position on that, or that they have.

Secretary BURNS. I think that's certainly true, Senator.

Senator WEBB. Would you explain the hurry on this? What is the urgency here in terms of wanting an agreement in this shortened timeframe?

Secretary BURNS. Well, Senator, I'd say two factors, and I know it's an extraordinary thing to be asking of the Congress, because this is a very important agreement with some serious implications, many of which have been discussed today.

The two factors, I would say, would be first—there's a considerable momentum that's been built up, you know, over the course of the years and in negotiating this agreement. It's a momentum that's been built up with a particular Indian leadership which has shown quite remarkable political courage, and helping to get both of us to this point.

And it just seems to us that now is the time to try to take advantage of that momentum, lock in this progress, and as both of us—as both of our countries face elections and transitions—try to lock in that progress and create an even stronger foundation for the next administration's in both countries to build on.

The second factor that I'd cite is, really, has more to do with commerce. And that is that, even though the Indian Government has provided, I think, some very important assurances that it wants to create a level playing field for American firms, that it does not intend to enter into, or conclude, bilateral nuclear cooperation agreements with other countries, until the 123 Agreement is finalized—there's still a risk in, with the passage of time, that after the NSG exception, other countries are going to be able to take advantage of this process and do more business in India at the expense of our firms.

So, I'm not citing that as the first reason, but it's an important consideration, I think.

Senator WEBB. Thank you. Thank you for your testimony.

Thank you, Mr. Chairman.

Senator DODD. I was going to add, picking up on Senator Webb's last question, and correct me if I'm wrong on this, call it an ironic twist. But in moving more rapidly on this, putting aside the legitimate issues raised about why do we need to move rapidly, for those who would seek to modify this agreement, ironically, the speed with which we do this allows for modifications to occur. That if we would wait until the provisions of law prohibit any modifications, in a sense, the ability to make some changes that some of us may want to do would be prohibited under the law from doing so. It's unamendable at that point. Am I understanding that correctly?

Mr. ROOD. Yes, Senator; that is correct.

Senator DODD. So, the irony is that actually moving more rapidly gives us more of a chance to correct what's sort of counterintuitive to what we'd normally associate with time being an ally for those who are seeking whatever modifications we may seek on this.

Let me raise a couple of questions, again, if I can. Some of this has been touched on, but I want to go back to the U.S. approval of storage facilities.

I know in response to a question—maybe Senator Lugar raised the storage issue, and I think, Mr. Rood, your response was that none of this can happen without there being IAEA approval, or IAEA standards, rather, in storage facilities.

The Atomic Energy Act requires that the, "Nuclear cooperation agreements contain a guarantee that no fissile material the other party obtains or produced, pursuant to this agreement, will be stored in any facility that has not been approved in advance by the United States."

The nuclear nonproliferation assessment Statement submitted with the agreement, states that "Article 7–1 of the agreement satisfies this requirement." Article 7, subparagraph 1, at least it would appear, to me, requires "only that the storage facilities meet the physical protection standards set by the IAEA," which I believe was your response to the question, at least as it was posed, I believe, by Senator Lugar at the time, "An Indian storage site will be changed only if India decides that the IAEA standards cannot be met at that site."

So, the obvious questions are, how do you read section 123(a)(8) of the Atomic Energy Act, which I've quoted? Does it require a guarantee in the agreement that the United States would have to give advanced approval of the storage site? How does this agreement provide that guarantee? We all agree that the IAEA standard is a good one. I'm not arguing with that, in any way.

But it seems to me that what the Atomic Energy Act requires a higher standard than just IAEA standards, at least as I read them. I'm not drawing the conclusion, but does the agreement even provide an inspection mechanism, to ensure that the IAEA physical protection standards are met at each storage site, or would the United States have to rely upon the information provided by India in that regard?

The Department of Energy, I might add, has an International Nuclear Security Program to conduct bilateral assessments of civilian nuclear sites to verify that the U.S. nuclear material is adequately protected. I wonder if India has agreed to conduct such bilateral assessments under this program?

It's a series of questions there.

Mr. STRATFORD. Thank you, Senator.

What 123(A)(8) requires is that plutonium, and high-enriched uranium must be stored in a facility that has been approved in advance by the United States—that's the concept.

The reason that is there, is to be sure that weapons-usable nuclear materials don't wind up in a facility where they could be stolen or taken away by a terrorist. That's the whole purpose of that provision.

So, what we did was to draft a provision that says, "All right, plutonium, uranium-233, and high-enriched uranium may be stored in facilities that meet IAEA physical protection levels." And the way that works is, you write them down on a list and you give it to us.

Now, suppose we don't like something that's on the list, and we have some reason to worry about physical protection. Then, the article calls for immediate consultations, and remedial measures to be taken immediately. So, translated, if I think I don't like Facility X for some reason, I can say, "I want to talk to you about it, and oh, by the way, I want more guards." Under that article, the guards should be provided, and then we proceed to work out the details.

Now, if we don't like the way the details are worked out, then the material has to be moved to a different location. Now, does this look nonstandard? Yes, it does. But as I recall, a very similar mechanism was used by us in the Euratom Agreement, but I'd want to check that for the record. In other words, this is not something that appeared out of whole cloth.

Senator DODD. And so in effect, what you're saying to me as I hear you explain this, that would satisfy the language of the Atomic Energy Act guarantee.

Mr. STRATFORD. I would say that, and so would our lawyers.

Senator DODD. Let me go to the second question and this is a little more complicated. I'm actually going to read part of this, because I want to suggest at the outset, and truth in advertising, I'm not sure I could explain this if I didn't read it because it gets into the realm of heavy water. And while my State has a lot of commercial power plants, I'm not going to suggest to you I have a degree in nuclear physics, here.

The issue I want to raise with you is, are we sure that the U.S. agreement with India will not assist India's nuclear weapons program? And it goes to the heavy water issue. So, let me go through this, and I apologize I'm reading this to you rather than extemporaneously trying to explain it, but I think it will be clear if I do it this way, and perhaps more brief.

"The United States has an obligation under article 1 of the Nuclear Non-proliferation Treaty to, "not, in any way, assist any nonnuclear weapons state to manufacture nuclear weapons.'" That's article 1 of that treaty, so I'll use that as a backdrop.

"Heavy water, water in which hydrogen is replaced by deuterium, is used as a moderator in many Indian reactors, which are based on the Canadian Candu reactor—India's civilian reactors of this type would be devoted to power generation. But other Indian reactors of the same type will be designated as military, because they can be—and sometimes are—used not just for power generation, but also for plutonium production."

India allegedly used heavy water from the United States when it produced the plutonium for its first nuclear test. Why isn't heavy water included in the peaceful use pledge of article 9 of the agreement? Would a diversion of heavy water violate the agreement? That is one question.

India listed three heavy water production plants as civilian in its separation plant. It added, though, and I quote from them, "We do not consider these plants as relevant for safeguards purposes." And, indeed, the IAEA does not routinely safeguard heavy water production plants.

What is to keep India from using, for military purposes, the heavy water production plants that it says will be designated for civilian use in the coming years? That's the second question. Given that heavy water from those plants could be used in India's military reactors, why did we—as a member of the IAEA Board of Governors—not insist on a safeguards regime for the heavy water plants, is the third question.

Now, here's where it gets here into this discussion here of physics. I'm told here, now, when heavy water is used as a moderator in a nuclear reactor, it absorbs neutrons, and some of the deute-

rium changes to tritium. That gives you tritiated water. If you remove the tritium from tritiated water, you can use it to boost the yield of a nuclear weapon, or to make a more reliable thermonuclear weapon.

The IAEA doesn't normally worry about that, I'm told, because non-nuclear weapon states don't normally have advanced nuclear weapon programs that could make good use of tritium.

India, however, did conduct a test that it said was of a thermonuclear weapon. So, the diversion of tritium to military uses might warrant prevention through safeguards.

The last question is why didn't we raise that concern when India's safeguards agreement was considered by the IAEA Board of Governors?

I apologize for the complexity of that question.

Mr. STRATFORD. It's a complex question. I'm not sure I got all of it, but I think I know all of the issues that I can respond to it.

Senator DODD. I'm not sure I did either, when I read it, but——

[Laughter.]

Mr. STRATFORD. A heavy-water moderated reactor could be either purely civilian, to produce electricity for the grid——

Senator DODD. Right.

Mr. STRATFORD [continuing]. And India has a number of those——

Senator DODD. Right.

Mr. STRATFORD. Or, you could use it as a production reactor, to produce nuclear material for weapons. If it was not a civilian facility that was not under safeguards, you could do that.

Senator DODD. It would be hard, if not impossible, to do the latter if you didn't have the heavy water, is that correct?

Mr. STRATFORD. You have to have the heavy water.

Now, the IAEA will safeguard heavy water if a supplier asks it to. So, if we were to send heavy water to India, for use in one of those 300-megawatt electrical, heavy water reactors, number one, we could do that legitimately, and number two, we would ask the IAEA to actually safeguard that heavy water, OK?

But we don't export large quantities of heavy water, we don't have the production capacity anymore, and I don't think we use any heavy water except for small amounts for research, OK?

One of the issues is, take a civilian reactor, with heavy water in it, that was on the military side, even if it didn't produce military material. Then you move it over to the civilian side, and the IAEA is safeguarding it. But it is still loaded with Indian heavy water on which there are no bilateral obligations.

The safeguards agreement allows India to swap out the heavy water, and bring in fresh heavy water. Why would they want to do that? Because as heavy water sits in a heavy water reactor, the water becomes tritiated, tritium builds up in the heavy water. And you eventually have to take it away and detritiate it.

Now, the question is, What happens to the tritium? And can it go into military uses. The IAEA does not safeguard tritium, at all. So, there is an issue with respect to an Indian reactor, which has been placed under safeguards, but is still being totally fueled with both fuel and heavy water by India.

But, what happens if that heavy water—I'm sorry—if that reactor goes under safeguards, and we fuel it. If we fuel it, then, what our agreement says, is, number one, heavy water is a by-product material—I'm sorry, tritium. Tritium is a by-product material, No. 1. No. 2, by-product material is specifically subject to peaceful use guarantees, in article 9, and No. 3, if you go to the agreed minute, India has to give us an annual accounting of all tritium produced in a reactor where our nuclear fuel is in it. So——

Senator DODD. Let me interrupt, for one second.

Mr. STRATFORD. Sure.

Senator DODD. What if Russia provided heavy water?

Mr. STRATFORD. That's the next issue. If Russia provided heavy water, No. 1, Russia would ask for the heavy water to be under safeguards, and then, I'm not sure what would happen after that, because I have not seen a Russian agreement for cooperation.

But, as I said, if we supplied to the reactor, the tritium issue goes away, because of safeguards and accounting—they owe us an accounting.

What I want to do is go back into the NSG this fall, or before that, and say, "Russia, France, you know what? If we fuel a reactor, all of a sudden, that tritium comes under U.S. controls." Now, I'd like to be sure that you have the same controls that I do, in order to take away the tritium issue in India. Once, I think, we get to the major suppliers, the ones who would supply either reactors or uranium, I think we can fix that problem across the board.

Senator DODD. Thank you, that is a legitimate concern. Is that correct? That's a question.

Mr. STRATFORD. Yes; that is a legitimate concern, because the IAEA does not safeguard tritium. Therefore, it's up to us to figure out how to get controls over tritium. For our agreement, we've done it. I'd like to be sure others wind up in the same place.

Senator DODD. On that last point, I guess I understand what you're saying. It was within our ability to ask the IAEA to consider this as part of their standards. Have we made such a request of the IAEA?

Mr. STRATFORD. No, but I have talked to their lawyers about it. Their view is, is that if we supply them heavy water, the IAEA will put the heavy water under safeguards, and just as if we supply them fuel, everything that is derived in that reactor is subject to our controls.

But the IAEA has never been empowered to treat tritium the same way it treats fissionable material. So, they simply don't apply safeguards to tritium.

Part of it is because they've never been empowered to do it, and part of it, because as a practical matter, it's difficult to do. I mean, all of tritium you might get out of an entire reactor load of heavy water might fit in a container that big. And tritium—this is not the right word—evaporates. Twelve years later you have half as much as was in there before. So, it's actually difficult to maintain safeguards over something that ephemeral.

Senator DODD. I thank you for that answer, and I think I've understood your answer. It's complicated, and I appreciate it. And I apologize again, talking about tritiated water is not in my common vocabulary, so I appreciate your response to it.

I raised the issue a moment ago about storage facilities, and let me ask one last question regarding this. Where does it say, in these agreements that material must be moved if, in fact, we draw the conclusion that a facility is unsafe? It's Article 7, Storage and Re-Transfers. And it says, well, I'll let you answer the question.

Mr. STRATFORD. Thank you, Mr. Chairman.

Mr. Chairman, what it says is that—starting in the middle of that paragraph—if there are grounds to believe that the provisions of this sub-article are not being fully complied with, that means that I think that the physical protection is not good. Immediate consultations may be called for.

Following upon such consultations, each party shall ensure—by means of such consultations, that necessary remedial measures are taken immediately. Translated, "I want more guards. Give me more guards."

Such measures shall be sufficient to restore the levels of physical protection referred to above, at the facility in question. OK, I got what I want.

However, if the party on whose territory the nuclear material in question is stored determines that such measures are not feasible—translated, "I can't afford it, no more guards"—then it will shift the nuclear material to another appropriate, listed facility it identifies.

Remember, I have already cleared a list where things may go. So, if I say, "I want more guards," and they say, "No, you can't have it, it's too expensive," then what they have to do is go find another facility on the list that I have already cleared, and shift it to that facility. That's how it works.

Senator DODD. Again, let me apologize—these are very artful documents put together, but let me ask the obvious question that a layman would have. Is there an end-game at any point here? When, despite this, sort of moving things around, we're, at some point, not satisfied that the safeguards are sufficient enough? Is there anything in here that would allow us, then, to insist upon that material being moved, beyond just to another site?

Mr. STRATFORD. The answer is, yes, because of what I just read. It is conceivable, there might be a site where we might not be happy about physical protection. But I think it's important to remember that India has been using separated plutonium for a military program, to some extent, a civilian program, for over 30 years. And to the best of my knowledge, none of it has ever gone astray, been stolen, et cetera, so they know what they're doing when it comes to physical protection, and I have every reason to believe that there are facilities that we would legitimately let plutonium be stored in.

Senator DODD. Well, I thank you, and there may be some additional questions, and I really do appreciate it very much. This is a very complicated, by very important, obviously, as witnessed by the member participation.

And let me end where we began. Thank you, Secretary Burns for your willingness to work with us. And I can't speak for the other body, I have great respect for Howard Berman, who chairs the counterpart committee to this committee in the House of Representatives who, I know, has issues with this agreement. And I know members here do, as well, as you heard reflected in the ques-

tions today. And it would be very wise, in my view, to leave that door open, here, to determine whether or not some of these concerns can be addressed, in the coming—literally—hours as we're trying to deal with this.

I know it is certainly Senator Biden's hope, and I hesitate to speak for him—but I'm fairly confident here that it's his opinion, and mine, as well, that it's in our common interests to try to get this done. And that's not to suggest that questions have been raised, including ones raised by myself, that need some further clarification and modifications. But my hope is that we can get this done and move forward quickly.

And again, the only opportunity to receive any modifications is, in fact, this window. Once that window closes, for those of us who have some concerns, that option becomes foreclosed.

So, I'm hopeful that we can get that done, I'm very grateful to Senator Lugar and other members of the committee for their work, and we intend to work very closely with you and to try and achieve this goal. It's very important, for all of the reasons that I've identified earlier today.

And again, on behalf of Senator Biden, we clearly appreciate the work that's been done.

I want to thank our staffs, by the way. This is a very complicated area, and they've done an excellent job on the briefing materials for all of this, as well. We're very grateful to you, Secretary Burns.

The committee will stand adjourned.

[Whereupon, at 4:50 p.m., the hearing was adjourned.]

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

PREPARED STATEMENT OF HON. GEORGE V. VOINOVICH, U.S. SENATOR FROM OHIO

Mr. Chairman, today's hearing on the Agreement Concerning Peaceful Uses of Nuclear Energy between the United States and India is an important milestone for the U.S.-India strategic partnership and our joint commitment toward energy security and energy independence.

The United States and India have established a strategic partnership based upon shared democratic values. We also share vital national interests, including victory in the war against violent Islamic extremism, halting the proliferation of weapons of mass destruction, and a commitment toward regional stability in South and Central Asia.

I have long been an advocate of nuclear power as an environmentally friendly means toward achieving energy independence. This agreement will help meet India's energy needs, lessen its dependence on imported oil—including that from Iran—and strengthen energy security for both India and the United States. Nuclear power will bring clean, efficient energy to India and reduce air pollution locally, regionally, and globally.

This Agreement will also open up bilateral trade and American investment in India's nuclear energy sector for the first time in over 30 years. The opportunity for U.S. companies is tremendous. According to the U.S.-India Business Council (USIBC), nuclear trade with India can potentially yield a total commercial opportunity of $126–$158 billion for American industry. The USIBC estimates commercial nuclear trade with India could create up to 277,000 high-tech American jobs.

Mr. Chairman, I am committed to our continued strategic partnership with India. This Agreement will offer major energy, economic, environmental, and national security benefits to both our countries. As such, I urge the Senate Foreign Relations Committee to report favorably—and for the Senate to expeditiously approve—the Agreement Concerning Peaceful Uses of Nuclear Energy between the United States and India.

Thank you.

RESPONSES OF UNDER SECRETARY WILLIAM BURNS AND ACTING UNDER SECRETARY JOHN ROOD TO QUESTIONS SUBMITTED FOR THE RECORD BY SENATOR JOHN KERRY

Question. Indian Prime Minister Manmohan Singh has said that India "would take on the same responsibilities and practices . . . as other leading countries with advanced nuclear technology, such as the United States." Specifically, India has agreed to identify and separate its civilian and military nuclear facilities; declare its civilian programs to the IAEA; sign an Additional Protocol for its civilian nuclear facilities; continue its voluntary nuclear test moratorium; work with the United States to sign a Fissile Material Cutoff Treaty; refrain from transferring enrichment and reprocess technologies; and support comprehensive export control legislation and adherence to the Missile Technology Control Regime and the Nuclear Suppliers Group guidelines.

- Do you have sufficient confidence that these nonproliferation safeguards are adequate?

Answer. Under this Initiative, India remains outside the Nuclear Non-Proliferation Treaty (NPT) but assumes important nonproliferation responsibilities and obligations, including separating its civil and military nuclear facilities and programs, accepting IAEA safeguards at its civil nuclear facilities, and signing and implementing an Additional Protocol. India has created a robust national export control system, including through harmonization with and adherence to the Nuclear Suppliers Group (NSG) and the Missile Technology Control Regime (MTCR) guidelines and annexes. Additionally, India has pledged to continue its unilateral moratorium on nuclear testing and is working with the United States to conclude a multilateral Fissile Material Cutoff Treaty—a longstanding objective of the international community.

In joining the Initiative with the United States, India has committed itself to uphold the practices of responsible nations with advanced nuclear technology. And it has agreed to participate in cooperative efforts to deal with the challenge posed by the proliferation of weapons of mass destruction and their delivery systems.

Individually, each of these activities helps strengthen the global nonproliferation regime. Together, they move India into closer conformity with international nonproliferation standards and practices, and this development advances U.S. nonproliferation policy and nuclear security goals in a way that will make the United States and the world safer.

While these important nonproliferation steps by India establish a firm foundation for additional nonproliferation and counterproliferation cooperation, civil nuclear supply must still be subject to IAEA safeguards, end-use assurances, and scrutiny by all suppliers. Accordingly, the U.S. and other potential suppliers to India have international, and in many cases domestic, legal and policy requirements to ensure that items supplied under their agreements for peaceful nuclear cooperation exclusively serve the civil sector.

The U.S. and other NSG members rely on IAEA inspection and monitoring at facilities where IAEA safeguards are being applied, which will be the only facilities to which U.S. or internationally supplied nuclear technology, equipment, and material will be transferred. The IAEA Board of Governors approved a safeguards agreement with India that meets standard IAEA safeguards practices and procedures. Once a facility is placed on the Annex to the safeguards agreement, that facility will continue under safeguards unless India and the IAEA "jointly determine" that the facility is no longer usable for any nuclear activity relevant from the point of view of safeguards. Moreover, an Additional Protocol will provide for broadened IAEA access to facilities and information regarding civil nuclear-related activities.

In addition, there are several ways the U.S. is assured that dual-use nuclear exports administered by the Department of Commerce are going to reliable recipients of U.S. origin items and are not diverted to unauthorized end-users or end-uses. As part of the license application process we require certification that the nuclear dual-use item(s) will not be used in any of the prohibited activities described in § 744.2(a) of the Export Administration Regulations (EAR). Through the licensing process, the intelligence and enforcement communities provide information on the bona fides of prospective end-users. Commerce determines the bona fides of the transaction and suitability of the end-user through the use of prelicense checks. This information is then used to make licensing decisions. As part of the approval process, export licenses normally have conditions attached that prohibit reexport, retransfer, or use in sensitive nuclear, chemical, biological, or missile end-uses. We require applicants to inform end-users of the licensing conditions. Also, through post-shipment verifications, the U.S. visits recipients of U.S.-origin items to ensure that the items have actually been delivered to the authorized ultimate consignee or end-user and that those items are being used as stated on the export license application. Licens-

ing decisions are, or course, guided by the United States being able to successfully complete both prelicense and post-shipment checks.

As another example, the transfer of nuclear technology requires authorization by the Secretary of Energy under section 57(b) of the Atomic Energy Act of 1954. The regulations that implement section 57(b), found in 10 CFR Part 810, contain the conditions for such technology transfers, and the Hyde Act elaborates measures that are to be taken for such technology transfers to India. In addition, prior to approval of an authorization the U.S. Government obtains government-to-government assurances that transferred technology will not be used for any military or nuclear explosive purpose and will not be retransferred to another country without the prior consent of the U.S. Government.

In addition, in January 2004, the Government of India provided the United States a letter of assurances in which it affirmed its commitment that U.S.-origin equipment, material, software, and technology would be used only for peaceful uses, and that such items would not be transferred from or through India for use in prohibited unsafeguarded nuclear, WMD, or WMD delivery programs.

Question. Are you satisfied that there is no lingering ambiguity about what happens in the event of a nuclear test by India? Are the related public commitments made by the Indian Government nonbinding political commitments or binding legal commitments?

Answer. In the event of a nuclear test by India, the Presidential determination and waivers under the Hyde Act would cease to be effective, and peaceful nuclear cooperation with India would be subject to the prohibition in section 129 of the Atomic Energy Act. The consequence would be that exports to India pursuant to the 123 Agreement would be terminated, absent a waiver by the President of sections 128 and 129 of the Atomic Energy Act. The waiver standard under these provisions is that the failure to approve an export (section 128) or the cessation of exports (section 129) "would be seriously prejudicial to the achievement of United States nonproliferation objectives or otherwise jeopardize the common defense and security." A waiver by the President would be subject to congressional review for 60 days of continuous session. Under the 123 Agreement, the United States would also have the right under article 14 to terminate the agreement, as well as the right to cease cooperation immediately if it determined that India had taken actions that constituted grounds for such cessation and that a resolution of the problem created by India's actions could not be achieved through consultations. In short, there is no ambiguity about the operation of U.S. law and the rights of the parties under the relevant provisions of the treaty in the circumstances described.

In addition, the United States has made clear, at senior levels as well as in the negotiations, that "the deal would be off" if India did not maintain the moratorium on nuclear testing that it committed to continue in the Bush-Singh Joint Statement of July 18, 2005. There has been no ambiguity in the U.S. position on this issue, and the Government of India has indicated that it understands that these would be the consequences. There has been some confusion in the Government of India (and in the press) regarding the legal status of the U.S. fuel supply assurances. There is a broad misperception in India that our reaffirming clearly the political nature of our fuel assurances in the President's Transmittal Letter was in fact an attempt to diminish their reliability. We continue to discuss the distinction with the Government of India, but as Under Secretary Burns made clear in his testimony "we are determined to meet (our fuel assurance) commitments to the fullest extent consistent with U.S. law." We are also confident in the U.S. legal position and in the provisions of the 123 Agreement as a basis for implementing U.S. law in the event of a test by India.

This question also raises the issue whether "related public commitments made by the Indian Government" are political commitments or legally binding commitments. As noted above, in the Bush-Singh Joint Statement of July 18, 2005, India undertook to continue its moratorium on nuclear testing. As with the other commitments in the Joint Statement, this undertaking was a political commitment. India retains the sovereign right to conduct a nuclear test. Likewise, the U.S. retains the right to react to such a test in accordance with U.S. law and policy and the Government of India has indicated that it understands these would be the consequences.

Question. Section 104(b)(1) of the Hyde Act requires the President to certify that "India has provided the United States and the IAEA with a credible plan to separate civil and military nuclear facilities, materials, and programs, and has filed a declaration regarding its civil facilities . . . with the IAEA." The report submitted by the President pursuant to the Hyde Act says that paragraph 14 in the separation plan actually constitutes the declaration. Do you think that is consistent with the letter and the intent of the Hyde Act?

Answer. We think it is consistent with the letter and intent of the Hyde Act. As noted in our report pursuant to the section 104(c) of the Hyde Act, paragraph 14 of India's Separation Plan describes the "civil" elements of India's nuclear program, specifically naming the 14 reactors that will be declared "civil" and establishing a timetable for placing them under safeguards, as well as describing the treatment of other types of facilities (breeder reactors, research reactors, upstream facilities, downstream facilities, and research facilities). The Separation Plan was transmitted on July 25, 2008, by the Government of India to the Director General of the IAEA to be distributed "to all Member-States of the Agency" (and the IAEA circulated the Separation Plan to Members as IAEA document INFCIRC/731). In a speech to the Indian Parliament on August 17, 2006, the Prime Minister confirmed that the "civil" facilities designated in the Separation Plan would be submitted to safeguards in a phased manner. He made similar statements to the Indian Parliament on August 13, 2007, after negotiations were completed on the 123 Agreement. Introducing the India-IAEA Safeguards Agreement, the Director General of the IAEA specifically referred to the significance of the recently circulated Separation Plan, noting that it described the facilities expected to come under safeguards by 2014. In short, the information contained in paragraph 14 of the Separation Plan provided the U.S. and the IAEA with the necessary information regarding the intended scope of India's civil facilities, and it was treated as authoritative by the Government of India. For this reason, the President made the determination required by section 104(b)(1) of the Hyde Act.

Question. Do you believe the agreement the administration negotiated otherwise conforms to the Hyde Act?

Answer. Yes. The proposed agreement for nuclear cooperation between the United States and India is fully consistent both with the Hyde Act and the Atomic Energy Act of 1954. The President has made the seven-part determination required by the Hyde Act (Presidential Determination 2008–26).

Question. How do you respond to concerns that this agreement will allow India to divert uranium that would otherwise be required for power generation to its nuclear weapons program, contributing to a regional arms race?

Answer. The Agreement is not about India's nuclear weapons production. Its purpose is to ensure that nuclear items, equipment, and technology transferred to India are used exclusively for peaceful purposes. With or without this Initiative, India is capable of maintaining its existing nuclear arsenal. It has a functioning fuel cycle and demonstrated competence with nuclear technologies.

India has stated consistently that it seeks to maintain what it calls a "credible minimum deterrent." Relative to its current capabilities, India seeks a much larger civil nuclear energy program to meet its real and growing energy needs. Moreover, a successfully implemented Civil Nuclear Cooperation Initiative adds considerable incentives to grow its civil nuclear energy sector, since international cooperation will be allowed only with safeguarded facilities.

We do not believe that enhanced cooperation with India in the civil nuclear area or greater use of nuclear reactors to produce energy for the Indian people will contribute to or accelerate a regional arms race. Any potential for an Indo-Pakistani or Sino-Indian arms competition will be determined mainly by their respective bilateral relations, rather than by civil nuclear cooperation with India. Indeed, by bringing 64 percent of India's existing and planned thermal power reactors (14 out of 22) as well as associated upstream and downstream facilities and nine additional research facilities under safeguards in perpetuity and increasing transparency, the Initiative in effect restricts certain Indian facilities to only producing civil energy—facilities that could otherwise be used for nuclear weapons-related purposes.

It is U.S. policy to discourage the spread of nuclear weapons technology, and we continue to press for strategic restraint in South Asia. We continue our diplomatic efforts with both India and Pakistan in that regard.

Question. Some experts contend that a selective approach to nonproliferation creates a double-standard that makes it more difficult to rally the international community against the likes of Iran and North Korea. Is there not some merit to this view?

Answer. There is no reason to believe, and we have seen no indication, that this Initiative with India will encourage the international community to view Iran's or North Korea's noncompliance more leniently. Iran's pursuit of a nuclear weapons capability is a national security concern to the United States and to many of its international partners. Our partners understand the important differences between India and Iran or North Korea and the reasons for treating these countries differently. This is why IAEA Director General ElBaradei, as well as states including France,

the United Kingdom, Russia, and other partners in the effort to prevent Iran from acquiring nuclear weapons or to roll back North Korea's nuclear program have welcomed the Initiative with India.

RESPONSES OF UNDER SECRETARY WILLIAM BURNS AND ACTING UNDER SECRETARY JOHN ROOD TO QUESTIONS SUBMITTED FOR THE RECORD BY SENATOR ROBERT P. CASEY, JR

INITIAL U.S./INDIA PROPOSAL FOR A "CLEAN" NSG WAIVER

The Nuclear Suppliers Group (NSG) met in an extraordinary plenary session on August 21–22, 2008, to consider a country-specific exemption to permit its members to engage in civilian nuclear trade with India. However, any future U.S. civilian nuclear trade with India will be strictly governed by the criteria established in the Hyde Act. The Hyde Act establishes various restrictions on the type of trade the United States can conduct with India, including the provision of fuel supplies in a manner commensurate with ordinary reactor operating requirements. It also lays out the consequences for future civilian nuclear trade with New Delhi were India to conduct a nuclear weapons test.

Question 1a. Please explain why the United States, in coordination with India, submitted an initial proposal at the August NSG plenary session requesting that the exemption be as "clean" as possible and contain minimal conditions and restrictions on civilian nuclear trade with India.

Answer. The U.S. approach was always to seek an NSG exception that was fully consistent with the Hyde Act and did not add conditions that the Indian Government could not accept. The U.S.-drafted exception text, circulated by the German NSG Chair on August 7, 2008, in advance of the August Extraordinary Plenary, was consistent with this approach.

Similarly, the revised U.S.-drafted text for the September 4–6 Extraordinary Plenary strove to accommodate as many of the amendments proposed during the August Plenary as possible in a way that was consistent with the Hyde Act and with bringing the Initiative to fruition. After intensive discussions, the NSG reached consensus on September 6 to allow for civil nuclear cooperation with India.

Like the Hyde Act, the NSG statement incorporates the Indian nonproliferation commitments made in the July 2005 Joint Statement between President Bush and Prime Minister Singh. In fact, the NSG explicitly granted the exception based on these commitments and actions by India.

Question 1b. Why did the United States not seek to incorporate the specific restrictions and conditions detailed in the Hyde Act into the NSG exemption permitting civilian nuclear trade with India, so that all other NSG members would be explicitly bound by the same restrictions that U.S. suppliers face?

Answer. The U.S. sought an NSG exception for India that was consistent with the Hyde Act and, at the same time, capable of commanding a consensus within the Group. While the Hyde Act does not require incorporation of its specific terms and restrictions in the NSG exception, we pursued the NSG exception with an eye to the Hyde Act both as a matter of nonproliferation policy and so as to protect U.S. industry from any competitive disadvantage. The result is an NSG exception that is consistent with the Hyde Act, taking into account of the terms and restrictions of the Hyde Act.

Question 1c. Will U.S. companies be disadvantaged when competing for business with India's civilian nuclear industry because it will be operating under specific conditions and restrictions governing nuclear trade that do not apply to the other NSG suppliers?

Answer. We have not seen the peaceful nuclear cooperation agreements being negotiated by other nuclear suppliers with India and thus do not know whether these agreements contain provisions similar to those in the U.S.-India 123 Agreement. Nevertheless, we do not believe that U.S. companies will be disadvantaged compared to other suppliers.

As mentioned in the answer to Question 1b above, while the Hyde Act does not require incorporation of its specific terms and restrictions in the NSG exception, we pursued the NSG exception with an eye to the Hyde Act both as a matter of nonproliferation policy and so as to protect U.S. industry from any competitive disadvantage.

PROGRESS TOWARDS COMPLETION OF INDIA-IAEA ADDITIONAL PROTOCOL

Question 2. A Presidential Determination issued on September 10, 2008, was included in the package formally submitted to the Congress, consistent with the requirements outlined under the Hyde Act for expedited approval of the U.S.-India Article 123 agreement on civil nuclear cooperation. This determination included the following statement, addressing a specific requirement of the Hyde Act with respect to final approval of a U.S.-India Article 123 civilian nuclear cooperation agreement:

> India and the IAEA are making substantial progress toward concluding an Additional Protocol consistent with IAEA principles, practices, and policies that would apply to India's civil nuclear program;

Please provide the basis for this statement, including specific evidence that the Indian Government and the IAEA Secretariat have exchanged the type of texts and proposals that would signify "substantial progress" toward concluding an Additional Protocol.

Answer. Indian External Affairs Minister Pranab Mukherjee noted in his statement on September 5, 2008, that India was "working closely with the IAEA to ensure early conclusion of an Additional Protocol to the Safeguards Agreement."

Indian officials have conveyed a letter to IAEA counterparts outlining the contours of a proposed Protocol. At the time of the President's determination, the IAEA was reviewing India's proposal and substantive discussions between India and the IAEA had been held. The details included in this letter as well as substantive discussions between Indian officials and the IAEA prompted IAEA Director General Mohamed ElBaradei to inform us on September 10, 2008, of his conclusion that the IAEA and India are making substantial progress toward concluding an Additional Protocol consistent with IAEA principles, practices, and policies that would apply to India's civil nuclear program. As we are not a party to this negotiation, we have not seen the text of the Indian paper. We were assured however by Director General ElBaradei's assessment of the state of progress, as well as by the continued commitment of both parties to this effort.

Since the President's determination, Indian and IAEA officials have held another round of talks on the Indian paper (September 17, 2008). We look forward to conclusion of this Additional Protocol at an early date.

BRINGING INDIA INTO THE NONPROLIFERATION MAINSTREAM?

Ever since the initial Joint Statement between the United States and India was signed in July 2005 by President Bush and Prime Minister Singh, administration officials have contended that the agreement to resume civilian nuclear trade brings significant nonproliferation benefits. In his prepared statement for today's hearing, Acting Under Secretary of State Rood asserts,

> Regarding India's May 2006 Separation Plan, we believe its implementation will produce a significant nonproliferation gain. Once implemented, the percentage of India's total installed nuclear power capacity under IAEA safeguards will increase from 19 percent today to 65 percent by 2014. A further increase up to 80 percent is possible if India expands its civil nuclear infrastructure through foreign supply and indigenous development as it currently plans.
>
> The nonproliferation implications of placing such facilities under IAEA safeguards are clear. Every existing or new facility placed under safeguards will be designated as a civilian facility and will not be available to potentially contribute to India's nuclear weapons program. Furthermore, the Civil Nuclear Cooperation Initiative creates an incentive for India to declare as many facilities as possible as "civil" in order to enjoy the benefits of international cooperation.

Question 3a. The primary purpose of IAEA safeguards is to ensure that a state does not use civilian nuclear facilities to produce fissile materials for the purposes of a nuclear weapons program. India is a de facto nuclear weapons state today, and will remain so once the U.S.-India civil nuclear cooperation agreement enters into force.

What nonproliferation purpose is served by placing under IAEA safeguards those nuclear facilities designated for civilian energy production when nonsafeguarded plants will continue to produce fissile material for India's nuclear weapons program?

Answer. Under this Initiative, India submitted to the IAEA its plan to separate its civil and military facilities, in which 14 reactors, including the 4 presently safeguarded reactors, and other facilities would be offered for safeguards. By bringing 64 percent of India's existing and planned thermal power reactors (14 out of 22) as

well as associated upstream and downstream facilities and nine additional research facilities under safeguards in perpetuity and increasing transparency, the Initiative in effect restricts certain Indian facilities to only producing civil energy—facilities that could otherwise be used for nuclear-weapons-related purposes. Without this Initiative, India could use all of its current and planned unsafeguarded reactors for military purposes. With this Initiative, 8 of the 22 thermal power reactors are left on the military side of the separation plan.

India has stated consistently that it seeks to maintain what it calls a "credible minimum deterrent." Relative to its current capabilities, India does, however, seek a much larger civil nuclear energy program to meet its real and growing energy needs. Moreover, a successfully implemented Civil Nuclear Cooperation Initiative adds considerable incentives to restrict growth to its civil nuclear energy sector, since international cooperation will be allowed only with safeguarded facilities.

Question 3b. Has the IAEA produced a budgetary estimate on the impact of additional inspections on its already constrained operating expenses? How does the IAEA expect to pay for these additional expenses? Will the annual contribution of the United States to the IAEA rise accordingly?

Answer. The IAEA estimated a cost for India safeguards of about euro 1.2 million in its 2009 budget; however it indicated that this would be offset by savings in other parts of the budget. The IAEA expects to pay for safeguards for India out of its regular budget, of which the U.S. share is approximately 25 percent. While we expect there will be some impact of India safeguards on the IAEA's budget, the overall budget is determined by Member States, and not easily predictable. In the recent past, some increases in safeguards activities have been offset by efficiencies in the application of safeguards, for example.

INDIAN CIVILIAN NUCLEAR TRADE WITH NSG MEMBERS OTHER THAN THE UNITED STATES

Press reports indicate that the Indian Government has provided an oral assurance to senior U.S. officials that, regardless of the exemption authorized by the NSG, India will not commence civilian nuclear trade with any NSG member until the Congress approves the Article 123 agreement, thereby authorizing U.S. civilian nuclear trade with India in a manner consistent with the NSG exemption and the terms of the Hyde Act.

Question 4a. Please describe the nature of this assurance in greater detail. Did the Indian Government place an expiration date on this assurance, e.g., the Indian Government pledged to not enter into contracts with other NSG members until the Congress provided approval, but only for a certain period of time?

Answer. Indian Foreign Minister Mukherjee commented publicly on September 8, 2008, that the Indian Government intends to wait until the U.S. Congress acts before India enters into bilateral cooperation agreements with other countries. This assurance reflected the Foreign Minister's understanding that the United States, having worked to secure an NSG exception for India, was concerned that U.S. companies not be at a competitive disadvantage compared to their international counterparts.

Further to this issue, the spokesperson of the Indian Ministry of External Affairs, which Mr. Mukherjee oversees, issued a formal statement on September 11, 2008, stating that the Indian Government is "taking steps to realize commercial cooperation with foreign partners in this field. We have informed the USA about our intent to source state of the art nuclear technologies and facilities based on the provisions of the 123 Agreement from the U.S. [The Indian] Government is also moving toward finalizing bilateral agreements with other friendly partner countries such as France and Russia. While actual cooperation will commence after bilateral agreements like the 123 Agreement come into force, the Nuclear Power Corporation of India has already commenced a preliminary dialogue with U.S. companies in this regard."

The assurances of Foreign Minister Mukherjee are helpful, but with aggressive competition and bilateral agreements already in train between India and other countries, U.S. companies are eager to enter the market and compete without delay. Swift approval of the U.S.-India Peaceful Nuclear Cooperation Agreement will give U.S. companies access to this lucrative and growing civil nuclear energy market, estimated to be worth billions of dollars.

Question 4b. An Indian Foreign Ministry spokesman was quoted last week as saying, "Following the NSG statement which enables civil nuclear cooperation by NSG members with India, the government is taking steps to realize commercial cooperation with foreign partners." (Agence France-Press) This week, an Indian official was

quoted anonymously as asserting, "Though India has put its agreements with other countries on nuclear cooperation on hold, it cannot be seen as an open-ended wait, the onus is now squarely on the U.S. to ensure the 123 Agreement runs through the U.S. Congress and is ready for signature at the earliest." (Indo-Asian News Service)

How does the Indian pledge to refrain from civilian nuclear trade until the Congress acts accord with these reports that India has already moved to initiate contract discussions with NSG members in the wake of the group's approval of an exemption and may not wait indefinitely for the approval of the Congress?

Answer. As stated in response to Question 4a above, the spokesperson of the Indian Ministry of External Affairs issued a formal statement on September 11, 2008, stating that the Indian Government is "taking steps to realize commercial cooperation with foreign partners in this field. We have informed the USA about our intent to source state-of-the-art nuclear technologies and facilities based on the provisions of the 123 Agreement from the U.S. [The Indian] Government is also moving toward finalizing bilateral agreements with other friendly partner countries such as France and Russia. While actual cooperation will commence after bilateral agreements like the 123 Agreement come into force, the Nuclear Power Corporation of India has already commenced a preliminary dialogue with U.S. companies in this regard."

We have worked closely with India on all aspects of the Civil Nuclear Cooperation Initiative, including upcoming U.S. participation in the Indian civil nuclear market and securing a strong Letter of Intent stating India's intention to set aside at least two reactor sites with a minimum of 10,000 MWe generating capacity for U.S. firms.

The Indian Government's commitment to wait until the U.S. Congress acts before India signs cooperation agreements with other countries was made by Indian Foreign Minister Pranab Mukherjee on September 8. We welcome this senior-level assurance, but also recognize that with the Nuclear Suppliers Group decision to permit civil nuclear trade with India, our competitors are eager to enter the Indian energy market. Also, given India's enormous demand for energy, which helped prompt this Initiative, the Indian Government is understandably anxious to begin trade.

We have an unprecedented and historic opportunity before us. Together we can ensure that the United States and India complete the journey that we began together 3 years ago, and ensure that U.S. industry—just like its international counterparts—is able to engage with India on civil nuclear trade.

Question 4c. The September 10, 2008, letter from Indian Foreign Minister S. Menon to Under Secretary of State William Burns states, "it is the intention of the Indian Government to take all steps to adhere to the Convention on Supplementary Compensation for Nuclear Damage prior to the commencement of international civil nuclear cooperation under the Agreement."

Does that mean that India has pledged to hold off on all civil nuclear trade with all NSG members, as authorized by the NSG exemption, until this Convention enters into force for India?

Answer. India has pledged to take the steps necessary to adhere to the Convention on Supplementary Compensation for Nuclear Damage (CSC), and we expect it to do so soon. This senior-level Indian commitment to become a party to this international liability regime as soon as possible is an important step in ensuring that U.S. nuclear firms can compete on a level playing field with other international competitors who have other liability protections afforded to them by their governments. Because of these differing circumstances, Indian ratification of the CSC has not been a determining issue for nuclear industries in a number of other countries. It is also worth noting that the CSC still has not entered into force and, even with India's ratification, will not do so until the 90th day following the date on which at least five States with a minimum of 400,000 units of "installed nuclear capacity" have ratified the Convention.

MATERIAL SUBMITTED FOR THE RECORD BY SENATOR BARBARA BOXER

[From the New York Times, Sept. 9, 2008]

A BAD DEAL

President Bush has failed to achieve so many of his foreign policy goals, but last weekend he proved that he can still get what he really wants. The administration bullied and wheedled international approval of the President's ill-conceived nuclear deal with India.

The decision by the 45-nation Nuclear Suppliers Group (which sets rules for nuclear trade) means that for the first time in more than 30 years—since New Delhi used its civilian nuclear program to produce a bomb—the world can sell nuclear fuel and technology to India.

Mr. Bush and his aides argued that India is an important democracy and dismissed warnings that breaking the rules would make it even harder to pressure Iran and others to abandon their nuclear ambitions.

The White House will now try to wheedle and bully Congress to quickly sign off on the deal. Congress should resist that pressure.

The nuclear agreement was a bad idea from the start. Mr. Bush and his team were so eager for a foreign policy success that they gave away the store. They extracted no promise from India to stop producing bomb-making material. No promise not to expand its arsenal. And no promise not to resume nuclear testing.

The administration—and India's high-priced lobbyists—managed to persuade Congress in 2006 to give its preliminary approval. But Congress insisted on a few important conditions, including a halt to all nuclear trade if India tests another weapon.

That didn't stop the White House from insisting on more generous terms from the suppliers' group. When New Zealand and a group of other sensible countries tried to impose similar restrictions, the administration pulled out all of the diplomatic stops. (Officials proudly reported that Secretary of State Condoleezza Rice made at least two dozen calls to governments around the world to press for the India waiver.)

The suppliers' group gave its approval after India said it would abide by a voluntary moratorium on testing—but it does not require any member to cut off trade if India breaks that pledge.

That means that if India tests a nuclear weapon, it could still bypass American suppliers and keep buying fuel and technology from other less exacting sellers. Let us be clear about this. It is the administration that disadvantaged American companies when it argued for more lenient rules from the suppliers group than those written into American law.

And let us also be clear that Congress's restrictions were a sensible effort to limit the damage from this damaging deal and maintain a few shreds of American credibility when it comes to restraining the spread of nuclear weapons.

Lawmakers should hold off considering the deal at least until the new Congress takes office in January. And they must insist that at a minimum, the restrictions already written into American law are strictly adhered to.

The next President will have to do a far better job containing the world's growing nuclear appetites. And for that, he will need all of the moral authority and leverage he can muster.

[From the Washington Post, Sept. 18, 2008]

'06 Blueprint Leak Intensifies Concerns Over U.S.-India Deal

(By Joby Warrick)

In January 2006, an Indian government agency purchased newspaper ads seeking help in building an obscure piece of metal machinery. The details of the project, available to bidders, were laid out in a series of drawings that jolted nuclear weapons experts who discovered them that spring.

The blueprints depicted the inner workings of a centrifuge, a machine used to enrich uranium for nuclear bombs. In most Western countries, such drawings would be considered secret, but the Indian diagrams were available for a nominal bidding fee, said David Albright, a former U.N. weapons inspector. He said he acquired the drawings to prove a point.

"We got them for about $10," said Albright, who called the incident a "serious leak of sensitive nuclear information."

India has since tightened its bidding procedures, but the incident has fueled concerns among opponents of a U.S.-Indian civilian nuclear deal that Congress is expected to consider in the coming weeks.

The accord, first announced in 2005 by the Bush administration, would lift a decades-old moratorium on nuclear trade with India, allowing U.S. companies to share sensitive technology despite that country's refusal to ban nuclear testing or sign the nuclear Non-Proliferation Treaty. Backers of the deal say it will cement U.S. ties with India and reward a country that has been a responsible steward of nuclear technology since it first joined the nuclear weapons club in 1974.

But opponents say India's record on nonproliferation is not as unblemished as is claimed by the White House, which regards the nuclear pact as one of the foreign-policy highlights of the Bush administration's second term. Critics, including former U.S. diplomats, military officers and arms-control officials, accuse the White House of rushing the agreement through Congress without considering the long-term implications.

"This deal significantly weakens U.S. and international security," said retired Army Lt. Gen. Robert G. Gard, Jr., chairman of the Washington-based Center for Arms Control and Non-Proliferation. Yesterday, a group of 34 arms-control advocates and former government officials urged Congress to reject the deal in its current form.

Administration officials have repeatedly lauded India's efforts to prevent the spread of nuclear technology, contrasting its behavior with that of Pakistan, the home base of Abdul Qadeer Khan, the acknowledged nuclear smuggler who delivered weapons secrets to Libya, Iran and North Korea.

R. Nicholas Burns, the former Under Secretary of State for Political Affairs and a chief supporter of the landmark accord, said in a recent forum that India was "playing by the rules of the [nuclear] club but not allowed to join the club." Burns said the agreement "strengthened the international nonproliferation regime because it resolves an inherent contradiction in the regime."

Likewise, India's government says it deserves the trust of the world's nuclear gatekeepers. "India has an impeccable nonproliferation record," External Affairs Minister Pranab Mukherjee said last week. "We have in place an effective and comprehensive system of national export controls."

Opponents point to what they call decades of deceptive practices India has used to acquire nuclear materials from foreign governments. A draft report by Albright and his Institute for Science and International Security, a Washington-based nonprofit that monitors the spread of weapons technology, cites recent incidents in which it says India engaged in "illicit nuclear trade."

In an instance alleged by ISIS, India used an array of trading companies to secretly acquire tons of tributyl phosphate, a chemical used to separate plutonium from spent nuclear fuel. China, a longtime supplier of TBP to India, halted shipments of the chemical in 2003 after U.S. criticism. India turned to independent trading firms that acquired TBP from German and Russian companies without revealing the true destination, the report said.

The ISIS report, due for release today, included photocopies of some of the centrifuge drawings obtained by Albright, although the group removed key specifications. Albright said he shared his findings with State Department officials but was turned away.

"It didn't fit with their talking points," Albright said. "At the highest level, they were dismissive of our concerns."

A State Department spokesman declined to comment on Albright's report, saying it had not been reviewed, and said the agreement was in the U.S. interest.

Other opponents have cited transfers of sensitive weapons technology by individual Indian scientists. In 2004, the State Department slapped sanctions on two Indian nuclear scientists alleged to have passed heavy-water technology to Iran. At least four Indian companies have been sanctioned over sales of missile technology to Tehran.

Such incidents underscore concerns about the possible transfer of India's expanded nuclear know-how by rogue scientists and businessmen, said Henry Sokolski, the Defense Department's top nonproliferation official in the George H.W. Bush administration.

As trade grows between India and Iran, so does the risk of "transfers of technology that could be useful for Iran's purported weapons of mass destruction," Sokolski said.

INDIAN NUCLEAR EXPORT CONTROLS AND INFORMATION SECURITY: IMPORTANT QUESTIONS REMAIN—ISIS REPORT, SEPTEMBER 18, 2008

ARE INDIAN EXPORT CONTROLS AND INFORMATION SECURITY CONGRUENT WITH THE PROMISES AND CHEERLEADING?

(By David Albright and Paul Brannan)

The Nuclear Suppliers Group (NSG) released a statement on September 6, 2008, outlining its conditions for allowing the transfer of nuclear technology to India for use in IAEA safeguarded facilities. According to the statement, the NSG "note(d) steps that India has voluntarily taken" to institute "a national export control system

capable of effectively controlling transfers of multilaterally controlled . . . nuclear-related material, equipment and technology."

ISIS believes that important questions remain about the adequacy and implementation of India's export control and nuclear classification procedures. In addition, India's illicit procurement of dual-use nuclear-related items for its unsafeguarded nuclear program belies its commitment to the NSG.

In assessing India's nuclear procurement practices, ISIS found several incidents where India conducted illicit nuclear trade and leaked sensitive nuclear information.[1] Questions about past and current practices must be clarified as the U.S. Congress considers final approval of U.S.-India nuclear cooperation. The two following examples provide a basis to explore if India still leaks sensitive centrifuge information, engages in illicit nuclear trade and whether it will act in accordance with its promises to the NSG.

LEAKS OF SENSITIVE CENTRIFUGE COMPONENT DESIGN DRAWINGS AND INADEQUATE INFORMATION SECURITY

India Rare Earths (IRE), a sub-entity of India's Department of Atomic Energy, procures sensitive materials and technology for a secret gas centrifuge uranium enrichment plant codenamed "Rare Materials Project" (RMP) outside Mysore, India. IRE uses popular technology procurement Web sites and newspapers to solicit interested firms to purchase bid documents. These documents can be purchased for approximately $10 and some of them contained detailed drawings and manufacturing instructions for direct-use centrifuge components and other sensitive centrifuge-related items. In 2007, ISIS was easily able to attain component design drawings for the manufacture of sensitive centrifuge components. Figures 1, 2 and 3 show drawings for the manufacture of bellows in a supercritical centrifuge rotor made from maraging steel. The thin-walled rotor and bellows is considered one of the most sensitive centrifuge parts. ISIS removed specific dimensions and tolerances from the drawings, but otherwise did not change them. These drawings were in documents that also provide more details on the part's manufacture. Aside from loosely worded propriety language stamped on some of the designs, there isn't any notation prohibiting their export, nor any notation indicating that they are sensitive.

The level of detail in the documents is sufficient that they would be considered classified in supplier countries and not distributed without careful controls over their use and requirements for their protection. India may be releasing sensitive know-how to firms that may not intend to bid, may have forged their identity, or may be seeking centrifuge design information for secret nuclear programs. Another concern is that a winning bidder may be willing to manufacture and sell the same items to other, unknown clients. Other than the loosely worded propriety stamp on some of the drawings, any actual controls in place to stop such additional sales could not be discerned.

ILLICIT PROCUREMENT OF TRIBUTYL PHOSPHATE IN INDIA

Before April 2003, India procured from China large quantities of tributyl phosphate (TBP), a dual-use chemical that is used in nuclear programs to separate plutonium. China enacted new end-user requirements after a 2002 sale of TBP to North Korea was criticized by the U.S. government. India's subsequent attempts to procure TBP from China were unsuccessful, according to an Indian knowledgeable about India's procurement of TBP. India was forced to look elsewhere for a reliable supply of TBP and utilized an array of Indian trading companies to procure TBP secretly from suppliers in Germany and Russia according to information provided by this Indian source. The Nuclear Fuel Complex (NFC) in Hyderabad, India put forward tenders for buying TBP. Indian trading companies, some of which were liaison offices for European companies, successfully bid on these tenders and ordered the TBP from German and Russian suppliers (see figure 4). One order for 160 metric tonnes of TBP passed through multiple trading companies in India and Europe. In each case, the TBP was then shipped to India with the Indian trading companies, and not the NFC, listed as the recipient. The trading companies then turned over the TBP to the NFC. In each instance, the Nuclear Fuel Complex hid behind trading companies and procured TBP without the suppliers knowing that the materials were for the unsafeguarded nuclear program.

[1] http://isis-online.org/publications/southasia/indianprocurement.pdf; http://isis-online.org/publications/southasia/indiacritique.pdf; http://www.isis-online.org/publications/southasia/indiagrowingcapacity.pdf.

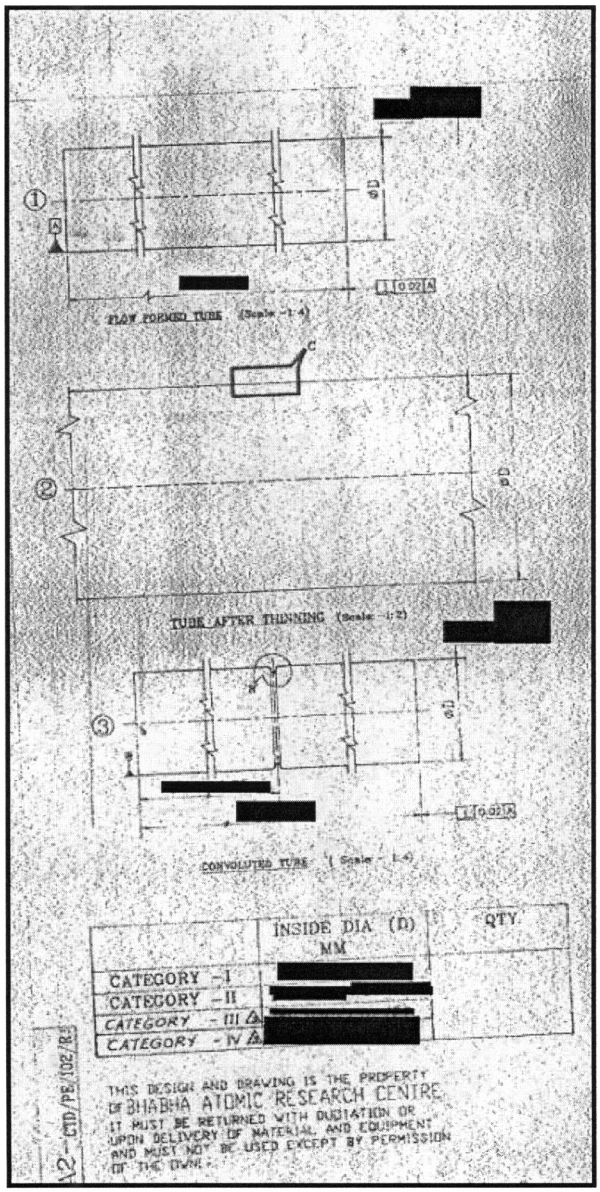

Figure 1. Drawing of a rotor tube with bellows for a supercritical gas centrifuge.

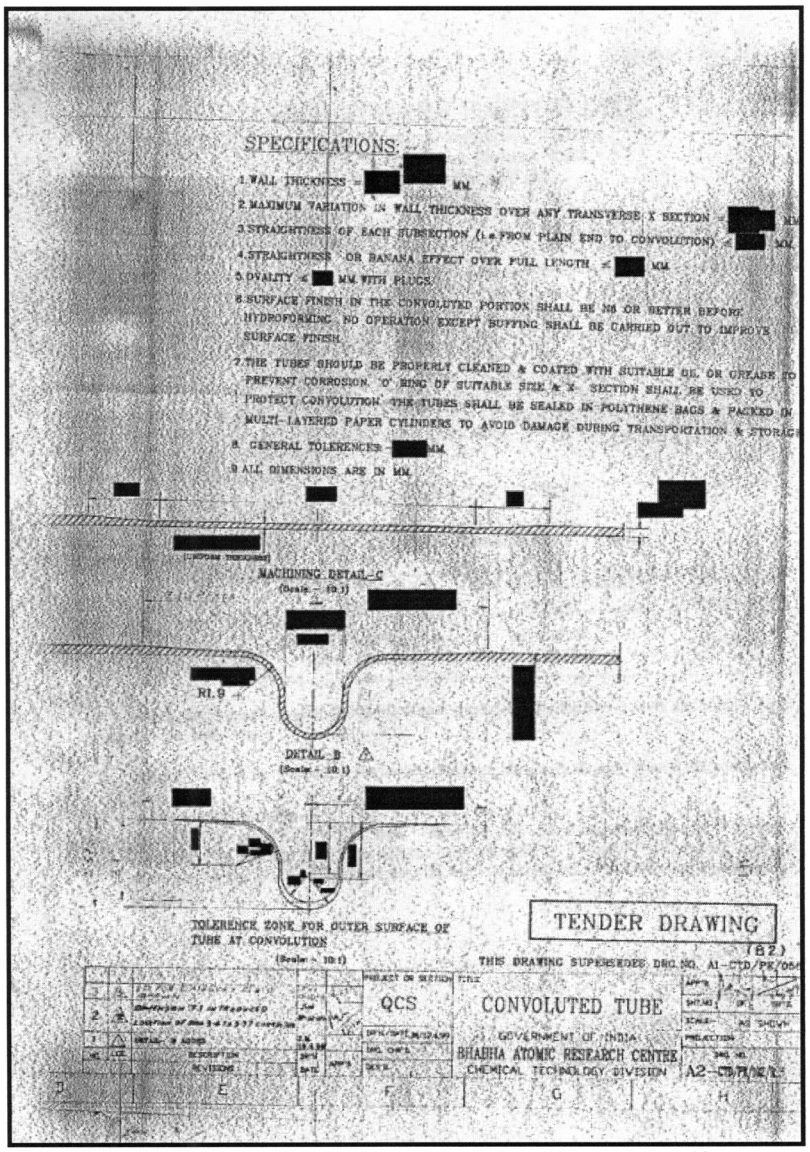

Figure 2. Drawing with detail for making bellows for a gas centrifuge.

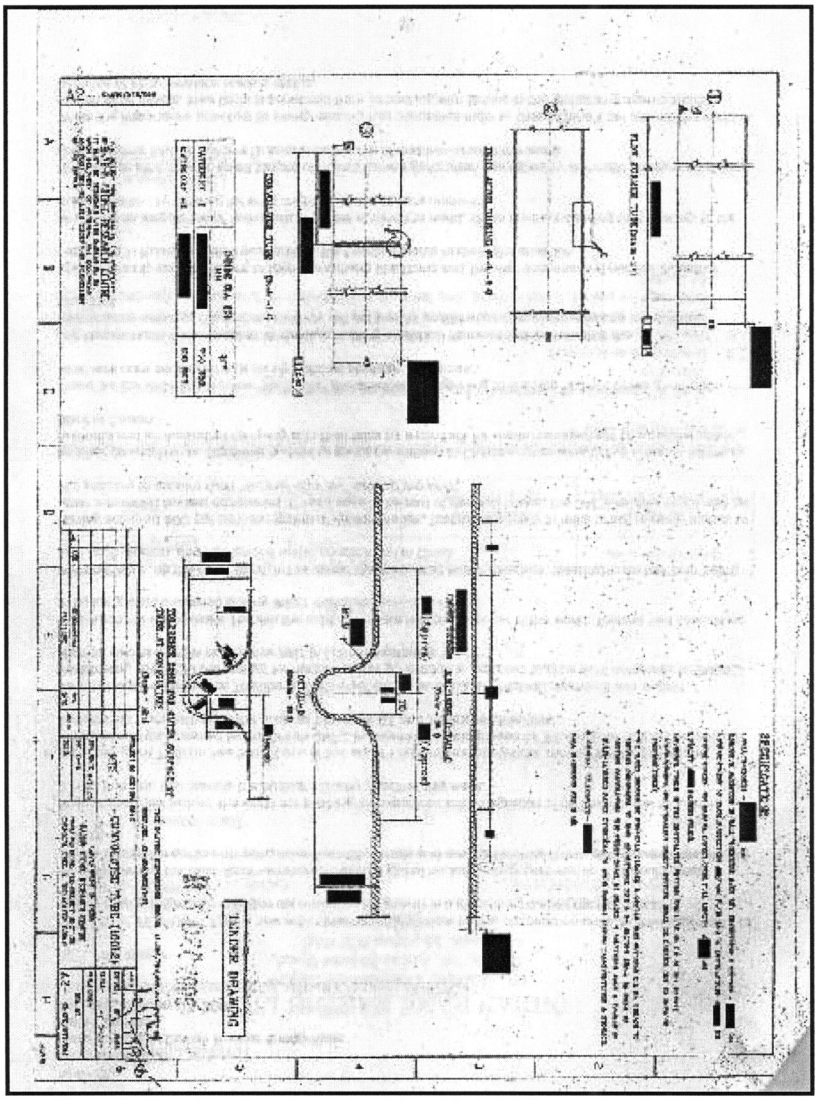

Figure 3. Drawing of another rotor tube with detail for making the bellows.

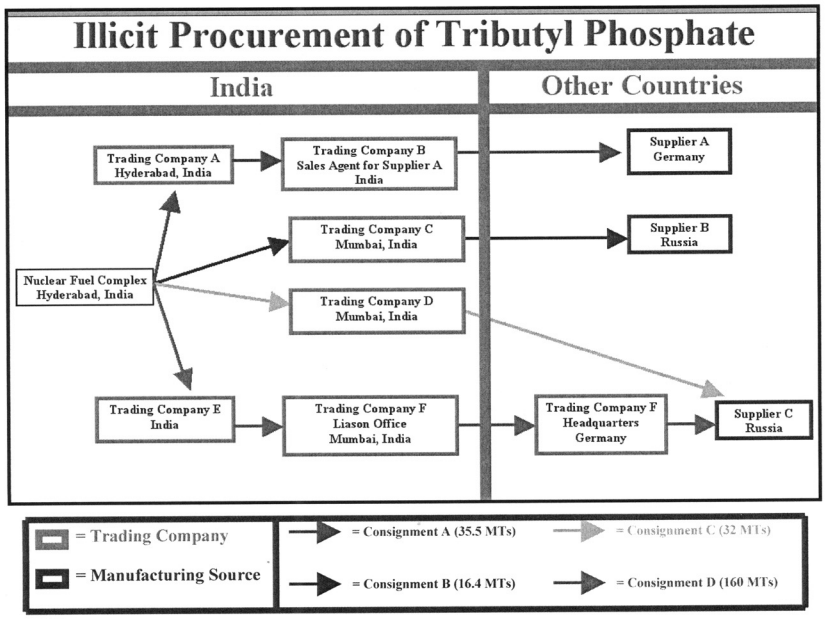

Figure 4. Diagram showing the route through which orders for tributyl phosphate (TBP), originating from the Nuclear Fuel Complex (NFC) in India, were made through Indian trading companies to suppliers in Russia and Germany. (ISIS removed the names of the companies from this chart) These suppliers or middlemen then shipped the TBP to these Indian trading companies and not the NFC. In each instance, the NFC hid behind these trading companies and procured TBP without the suppliers knowing that the materials were for the unsafeguarded nuclear program.

[From the Defense News and Army Times Publishing Co., Mar. 27, 2006]

INDIAN NAVY TRAINS IRANIAN SAILORS; U.S., INDIA STRADDLE FOREIGN POLICY LINE

(By Vivek Raghuvanshi, New Delhi and Gopal Ratnam, Washington, DC)

While U.S. President George W. Bush was in New Delhi earlier this month to sign a historic deal to supply nuclear fuel and technologies to India, two Iranian warships were in Kochi, the headquarters of Indian Navy's Southern Command, for a training program under a three-year-old military-cooperation agreement with Tehran.

The confluence of events illustrates the fine foreign-policy lines that U.S. and Indian officials are straddling.

The Bush administration is trying to slow Iran's nuclear-weapon program but also seeking Tehran's help in stabilizing Iraq. New Delhi appears to be striking a similar balance between closer strategic ties with Washington while seeking an independent relationship with oil-producing Iran.

The March 3–8 visit to Kochi by the IRIS Bandar Abbas, a fleet-supply-turned-training ship, and IRIS Lavan, an amphibious ship, was the first Iranian naval visit to India in many years, Indian Navy officials told local newspapers.

Indian naval instructors briefed nearly 220 Iranian sailors on the Indian Navy's training approach and course details, said Capt. M. Nambiar, spokesman for the Indian Navy's Southern Command.

The visit could be part of a larger Indo-Iranian naval training program, local press reports said. In 2003, India and Iran signed a strategic agreement to cooperate in defense and other matters. The deal was cemented by the visit of then-Ira-

nian President Mohammed Khatami to the Republic Day parade in New Delhi, an honor usually reserved for key allies.

But Indian officials tried to downplay the significance of the ships' visit, saying that it was a routine call by foreign training vessels at India's main naval training port.

"There is no particular significance to the timing of the call. This was a matter decided upon through normal diplomatic channels several months back and such visits are part of usual courtesies extended by navies of the world to their counterparts," one Indian diplomat said. "India's cooperation with Iran in the defense field is extremely limited."

Pentagon spokesman Lt. Col. Barry Venable declined to comment on India's training of Iranian sailors.

State Department officials also declined to comment by press time, saying they were seeking more details about the Iranian ship visit.

CONCERN IN WASHINGTON

But the India-Iran relationship is of serious concern to policymakers in Washington.

"India's relationship with Iran is a sensitive area that will shape how far we can go in our relationship with India, that's for sure," said Michael Green, who until recently directed Asia affairs at the White House National Security Council. Now an Asia specialist at the Center for Strategic and International Studies, Washington, Green he said he didn't know details of the Iranian ship visit.

The Bush administration, citing India's democracy and fast-growing economy, has highlighted the relationship as the cornerstone of a strategic push to build strong ties in Asia. A recent agreement settled by Bush and Indian Prime Minister Manmohan Singh would allow India to import nuclear fuel and technologies to meet India's energy needs.

The Pentagon and the American defense industry also are hoping to sell several billion dollars worth of high-tech weapons to India, including fighter planes, transport and surveillance aircraft, radar and naval vessels.

But key Members of Congress—including Senator Richard Lugar, R-Ind., chairman of the Senate Foreign Relations Committee, and Representative Henry Hyde, R-Ill., chairman of the House International Relations Committee—have yet to throw their support behind the proposed nuclear agreement, which would require changes to U.S. law.

Both are staunch advocates of nonproliferation measures, and are concerned that the proposed deal could hurt international efforts to prevent the spread of nuclear weapons.

Former U.S. Sen. Sam Nunn, another such advocate, has said the U.S.-India nuclear cooperation could harm "United States vital interests" and urged Congress not to support the deal without substantial modifications.

SEEKING BALANCE

India and Pakistan have been discussing proposals for a $4.5 billion pipeline to import Iranian natural gas. U.S. Secretary of State Condoleezza Rice opposed the deal at a press conference in New Delhi in March 2005, saying it would encourage Tehran to defy the international community.

But Indian officials refused to abandon the project, and the White House has apparently changed its mind.

"Our beef with Iran is not the pipeline," Bush said in Islamabad March 4. "Our beef with Iran is, in fact, they want to develop a nuclear weapon, and I believe a nuclear weapon in the hands of the Iranians will be very dangerous for all of us."

India reversed a long-standing position of its own in recent months by supporting Washington's effort to send the issue of Iran's nuclear-weapon program to the U.N. Security Council.

A top national-security official in India's previous government urged New Delhi to balance its ties to Washington and its neighborhood.

"India, by forging nuclear cooperation ties with the United States, should not adopt an American line on dealing with Iran," said Brijesh Mishra, who was national security adviser in the National Democratic Alliance government led by Prime Minister Atal Behari Vajpayee.

Mishra said ties to Iran could secure oil for energy-thirsty India as well as be "an important gateway" to improving relations with central Asian states.

India's vote against Iran "got the government into trouble with its own communist party allies" who saw it as a betrayal of the county's policies, said Salman Haidar,

a senior fellow at the U.S. Institute of Peace, Washington, and a former foreign secretary of India.

The current government, led by Prime Minister Manmohan Singh, is supported by communist parties known for their anti-American views.

Countries seeking closer relationship with the United States always face the problem of balancing their regional interests with those of Washington, Haidar said.

"India's strategic interest drives us toward Iran, but a different strategic calculation makes us wary of Iran. But we are certainly not going to treat Iran as a hostile power. If there is military action against Iran, I would not be surprised if India stays away from it. Not being looked upon as an American auxiliary is important for India. That's the way we are going."

[From Defense News, Mar. 19, 2007]

INDIA, IRAN FORM JOINT GROUP TO DEEPEN DEFENSE TIES

(By Vivek Raghuvanshi, New Delhi)

Iran and India agreed earlier this month to form a joint defense working group, which will meet later this year in Tehran to prepare a road map for defense cooperation, officials from both countries said.

The working group will mostly evaluate Tehran's request that India train some military personnel, Indian Defence Ministry sources said.

The agreement, which follows the broader strategic partnership accord the two countries signed in 2003, emerged from high-level talks held here during the March 4–9 visit of Rear Adm. Sajjad Kouchaki Badelani, commander of Iran's Navy.

Iranian diplomats here said Badelani's visit will spur defense cooperation, which had been low-key despite the strategic agreement. Under the 2003 accord, India agreed to provide Iran's military with hardware, training, maintenance and modernization.

"Badelani was in India last week at the invitation of Adm. Sureesh Mehta, chief of staff of the Indian Navy," an Indian Navy official said. "Iran and India are neighbors with deep civilization, cultural and people-to-people links."

Badelani's visit was the first top-level contact between the two navies since former Indian Navy Chief Madhvendra Singh visited Iran in 2003. The Iranian admiral met with Defence Minister A.K. Antony, Defence Secretary Shekhar Dutt, Air Force Chief Air Marshal S.P. Tyagi and Army Vice Chief Lt. Gen. Deepak Kapoor, Indian Defence Ministry sources said.

Badelani visited the Indian Navy's diving and submarine training schools at Visakhapatnam, and its navigation, signal and maritime warfare training schools at the Kochi base. Two Iranian naval ships on a training sortie visited Kochi in March 2006.

The Iranian delegation suggested exchanging warship engineers but no decision was reached, Defence Ministry sources said.

Navy officials said Badelani's visit will stregthen the traditional relations between India and Iran and help the Indian Navy build alliances to secure regional sea lanes and cooperate on other maritime matters.

"We have tremendous interest in the Persian Gulf because of energy resources, and India would like to have stability in the Persian Gulf," said defense analyst Gurpreet Khurana of the Institute of Defence Studies and Analysis, based here.

Sources in the Indian Ministry of Petroleum said construction of an 1,100-kilometer gas pipeline from Iran through Pakistan to India is in the final stages.

Badelani's visit followed New Delhi's ban on the export to Iran of all items, materials, equipment, goods and technology that could contribute to its nuclear enrichment program. India imposed the ban in February in compliance with a December's U.N. Security Council Resolution.

○