



Memorandum

April 5, 2006

TO: Rep. Edward Markey
Attention: Jeff Duncan

FROM: Sharon Squassoni
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Foreign Affairs, Defense, and Trade Division

SUBJECT: Administration's Proposed NSG Decision on Nuclear Cooperation with India

Per your request, this memorandum analyzes the Administration's proposed language for a Nuclear Suppliers Group decision on nuclear cooperation with India. Please contact me at 707-7745 if you have any questions.

Background

With the passage of the Nuclear Nonproliferation Act of 1978, the United States has restricted its nuclear cooperation with non-nuclear weapon states to those states that have full-scope safeguards agreements. Such safeguards, which apply to all nuclear material in a country, are the obligation of non-nuclear weapon state parties to the Nuclear Nonproliferation Treaty. In July 2005, President Bush stated he would seek to "achieve full civil nuclear energy cooperation with India" and would "also seek agreement from Congress to adjust U.S. laws and policies." India has nuclear weapons, has not signed the NPT, and does not have full-scope safeguards. On March 9, 2006, the President submitted proposed legislation to Congress to create an exception for nuclear cooperation with India from relevant sections (Sections 123 a. (2), 128, 129) of the Atomic Energy Act. One of the relevant requirements was full-scope safeguards for non-nuclear weapon states.¹

Although the United States adopted full-scope safeguards as a condition of nuclear supply in 1978, it was many years before other states adopted the same condition. In

¹ India is not considered to be a nuclear weapon state under the NPT because it did not test a nuclear weapon before January 1, 1967. Non-nuclear weapon state NPT parties commit to IAEA safeguards on all nuclear material in all peaceful nuclear activities – full-scope safeguards. India would have to renounce and dismantle its nuclear weapons program if it adopted full-scope safeguards.

1992, after Iraq's clandestine nuclear weapons program was revealed, the Nuclear Suppliers Group (NSG) revised its guidelines to include a full-scope safeguards condition. In 1995 at the NPT Review and Extension Conference, member states of the NPT endorsed the NSG action and the principle that states outside the treaty should not have the same benefits as states inside the treaty.

The Nuclear Suppliers Group and Its Guidelines

Nuclear export controls, although required by Article III of the NPT, are not defined in the NPT. Therefore, in 1971, several member states of the NPT formed the Zangger Committee to "harmonize the interpretation of nuclear export control policies for NPT Parties." However, India's 1974 test of a nuclear explosive device prompted the major nuclear suppliers in 1975 to establish a set of unpublished nuclear export guidelines.² In 1978, the group, known as the London Club, added new members and announced a common policy regarding nuclear exports. While the Zangger list initially included only nuclear materials and components used directly for production, use, or processing of special fissionable material, the London Club adopted more restrictive export control lists that included some dual-use items. In March 1991, the NSG updated its list of controlled commodities to include dual-use equipment, material and technology. In January 1992, the NSG adopted the longstanding U.S. policy of requiring full-scope safeguards for all nuclear exports.³ By 2006, the NSG had expanded to 45 members.⁴ However, as a voluntary association, the NSG has no formal administrative structure, no legal authority to influence the nuclear trade policies of its members, and no formal enforcement mechanism.

The NSG Guidelines (INFCIRC 254/Rev 1./Part 1) apply to "nuclear transfers for peaceful purposes to any non-nuclear weapon State, and in the case of controls on retransfer, to transfers to any State." Suppliers developed an "export trigger list." The principles to be applied to exports of trigger list items are, briefly:⁵

- § Prohibition on nuclear explosives;
- § Effective physical protection;
- § Full-scope safeguards for non-nuclear-weapon states (with exceptions for safety and agreements signed before 1992);
- § Restraint in transferring sensitive facilities, technology and material (i.e., enrichment and reprocessing facilities, equipment and technology)
- § Commitments not to enrich beyond 20% U-235 without consent of supplier;
- § Whenever appropriate and practicable, include arrangements to control nuclear material (such as arrangements on reprocessing, storage, alteration, use, transfer or retransfer);
- § Controls on retransfers; and

² See <http://www.nsg-online.org>

³ The new guidelines appeared as an International Atomic Energy Agency document, INFCIRC/254/Rev.1/Part 1 and Part 2, July 1992.

⁴ NSG members now total 45, with the addition of China, Lithuania, Estonia, and Malta at the May 2004 plenary.

⁵ For full text, see <http://www.nsg-online.org/PDF/infcirc254r7p1-050223.pdf>

§ Nonproliferation principle, which states that “suppliers should authorize transfer of items... only when they are satisfied that the transfers would not contribute to the proliferation of nuclear weapons or other nuclear explosive devices or be diverted to acts of nuclear terrorism.”

This last nonproliferation principle is similar to national “catch-all” provisions. In addition to those guidelines, there are principles for consultation, which call for:

- § regular channels for contact and consultation on implementing the guidelines;
- § consultation with other governments concerned on specific sensitive cases, to ensure that any transfer does not contribute to risks of conflict or instability;
- § consultation through diplomatic channels if one or more suppliers believe there has been a violation of supplier/recipient understandings
- § unanimous consent for changing the Guidelines.

Full-Scope Safeguards Requirement

The requirement for full-scope safeguards for non-nuclear weapon states is found in paragraph 4 of the NSG guidelines (see Annex A for full text):

- § (a) requires safeguards on all source and special fissionable material in a non-nuclear weapon states;
- § (b) provides an exemption for transfers conducted for safety reasons, provided that the facilities themselves are under safeguards;
- § (c) provides an exemption for agreements and contracts concluded before April 3, 1992 or before a state adheres to NSG guidelines; and
- § (d) provides that transfers made to non-nuclear weapon states without full-scope safeguards (for reasons of safety or grandfathered contracts) are covered by IAEA safeguards. In addition, suppliers undertake to strive for the earliest possible implementation of full-scope safeguards in the recipient state.

Draft Decision Document

On March 23, 2006, Bush Administration officials presented at an NSG Consultative Group meeting the text of a draft decision to create an exception to NSG Guidelines for nuclear exports to India. Reportedly, Administration officials sought to place the draft decision on the agenda of the May 2006 plenary meeting. Although NSG members did not agree to place the item on the May agenda, this does not necessarily mean the Administration will wait until the 2007 plenary to get a decision. Instead, the United States may seek to convene an extraordinary plenary some time before then. Congressional action on legislation may affect how quickly the United States seeks a decision.

The text of the draft decision is attached in Annex B. In addition to preambular language, the decision makes note of nonproliferation and safeguards commitments that India has taken. These are generally the same commitments made in the July 18th Joint Statement and the actions upon which President Bush would make his determinations according to the draft legislation he proposed to Congress (introduced as H.R. 4974 and S. 2429) creating an exception for India from certain provisions of the Atomic Energy

Act (the texts are compared in Table I below). The operative paragraphs of the draft decision are paragraphs four and five, which state:

4. Notwithstanding paragraphs 4 (a), 4 (b) and 4 (c), of INFCIRC/254/Part 1 as revised (the NSG Guidelines), Participating Governments may transfer trigger list items and/or related technology for use in civil nuclear facilities in India, in accordance with paragraph 4 (d) as long as the Participating Government intending to make the transfer is satisfied that India is continuing to meet all of the aforementioned non-proliferation and safeguards commitments, and that the contemplated transfer complies with all of the other conditions of the NSG Guidelines.

5. Participating Governments, in accordance with paragraph 4 (d), of the NSG Guidelines, will continue to strive for the earliest possible implementation of the policy referred to in paragraph 4 (a) with respect to transfers of trigger list items and related technology to India.”

Paragraph Four effectively exempts India from the full-scope safeguards requirement (paragraph 4 (a) of the Guidelines), and broadens the accepted circumstances for exemption beyond those of safety (4 (b)) and grandfathered agreements (4 (c)), as long as the transfers are safeguarded “in accordance with paragraph 4 (d)” of the NSG Guidelines. In addition, the supplier state must be satisfied that India is meeting its nonproliferation and safeguards commitments outlined in paragraph two of the draft decision. Finally, the intended transfer must comply with all of the other conditions of NSG guidelines as described earlier in this memo.

Paragraph Five reiterates the policy of NSG members to strive for implementation of the full-scope safeguards condition of supply, even in the case of India.

Issues for Congress

At a hearing before the House International Relations Committee, Under Secretary of State Bob Joseph told Members that “We intend to take no action that would undercut the effectiveness of the NSG. It is a very important nonproliferation tool. Our intention is not to change either the consensus procedure of the NSG or to even change the NSG commitment to full-scope safeguards as a condition of supply.”⁶ The draft decision tabled by the United States is consistent with that approach and seeks, instead, to create an exception just for India. One potential question that may arise is whether the United States will be able to influence its NSG partners in the kinds of exports sent to India. Reportedly, some NSG members in the November 2005 Consultative Group meeting expressed the desire to restrict exports of enrichment and reprocessing, heavy water, highly enriched uranium and plutonium. The draft decision does not prohibit sensitive exports such as these, nor do the NSG guidelines, at present, prohibit such exports.

Another question that could arise is how the United States and other states will measure their satisfaction in how well India is meeting its nonproliferation and

⁶ Response to question, Under Secretary of State for Arms Control and International Security Robert Joseph, hearing before House International Relations Committee, September 8, 2005.

safeguards commitments. For the United States, certain benchmarks appear in the Bush Administration's proposed legislation to Congress (introduced as H.R. 4974 and S. 2429). Under subsection (b) of the proposed legislation, the President may waive Sections 123a, 128, and 129 of the Atomic Energy Act and submit a nuclear cooperation agreement to Congress under the "routine" approval process if he determines that certain actions (specified in section (b) (1) through (7)) have occurred. These actions are listed in Table I below on the lefthand side. Table I compares those actions with India's commitments as listed in the draft NSG decision.

Table I. Comparison of Texts of H.R. 4974/S. 2429 and Draft NSG Decision on India's Nonproliferation Commitments

H.R. 4974/S. 2429	Draft NSG decision
(1) India has provided the US and the IAEA with a credible plan to separate civil and military facilities, materials, and programs and has filed a declaration on its civilian facilities with the IAEA	2.a. Has publicly designated civil nuclear facilities which will be submitted to IAEA safeguards in perpetuity
(2) An agreement has entered into force between India and the IAEA requiring the application of safeguards in accordance with IAEA practices to India's civil nuclear facilities as declared in the plan described in paragraph (1) above	n.a.
(3) India and the IAEA are making satisfactory progress toward implementing an Additional Protocol that would apply to India's civil nuclear program	2.c. Has committed to sign and adhere to an Additional Protocol covering designated civil nuclear facilities
(4) India is working with the United States for the conclusion of a multilateral Fissile Material Cutoff Treaty	2.b. Has committed to continue its moratorium on nuclear testing, and to work with others toward achievement of a Fissile Material Cutoff Treaty
(5) India is supporting international efforts to prevent the spread of enrichment and reprocessing technology	2.d. Has committed to support international efforts to restrain the spread of sensitive nuclear technologies
(6) India is ensuring that the necessary steps are being taken to secure nuclear materials and technology through the application of comprehensive export control legislation and regulations, and through harmonization and adherence to MTCR and NSG guidelines	2.e. Has adopted a national export control system capable of effectively controlling transfers of multilaterally controlled nuclear and nuclear-related material, equipment and technology
(7) Supply to India by the United States under an agreement for cooperation arranged pursuant to Section 123 of the Atomic Energy Act is consistent with U.S. participation in the NSG	2.f. Has committed to adhere to NSG Guidelines.

Table I indicates differences in language that may or may not make a difference. For example, the proposed legislation calls for a safeguards agreement entering into force, whereas the draft NSG decision is silent on the safeguards agreement. In addition, the proposed legislation calls for “satisfactory progress toward implementing an Additional Protocol” whereas the draft NSG decision calls only for commitment to sign and adhere to an Additional Protocol. Moreover, the proposed legislation calls for Indian support for international efforts to prevent the spread of enrichment and reprocessing technology, whereas the NSG draft decision calls for a commitment to support such efforts. Similarly, the proposed legislation calls for India to ensure that necessary steps are taken to secure nuclear materials and technology through application of comprehensive export control legislation and regulations, as well as through harmonization and adherence to MTCR and NSG guidelines. The NSG draft decision calls for the adoption of a national export control system “capable of effectively controlling” multilaterally controlled nuclear technology, equipment and technology.

Given that the NSG draft decision language specifies only that India must make commitments rather than implement them, some observers could conclude that India has already met all of the NSG draft criteria since it made all these commitments in 2005. The practical effect could be that NSG members might be able to export to India before U.S. companies could, even if an NSG decision awaited action by Congress on the proposed legislation. If NSG members held off on a decision until President Bush submitted the text of the nuclear cooperation agreement to Congress, U.S. suppliers would be on an even footing with other NSG suppliers. However, U.S. nuclear exports would cease if India detonated another nuclear explosive device, because of the provision in subsection (d) of the proposed legislation. NSG member states would likely not be “satisfied” that India had maintained its nuclear testing moratorium, but a cutoff of exports would be at their discretion. It is unclear how the kinds of fuel supply assurances India has requested of the United States (particularly establishing a committee to ensure fuel if U.S. fuel supplies are cut off) would affect decisions of other NSG members to continue supply in the face of a cutoff by the United States.⁷

⁷ According to the Implementation Plan given to the Indian Parliament on March 7, 2006, the U.S. made the following commitments: “i) The United States is willing to incorporate assurances regarding fuel supply in the bilateral U.S.-India agreement on peaceful uses of nuclear energy under Section 123 of the U.S. Atomic Energy Act, which would be submitted to the U.S. Congress. ii) The United States will join India in seeking to negotiate with the IAEA an India-specific fuel supply agreement. iii) The United States will support an Indian effort to develop a strategic reserve of nuclear fuel to guard against any disruption of supply over the lifetime of India’s reactors. iv) If despite these arrangements, a disruption of fuel supplies to India occurs, the United States and India would jointly convene a group of friendly supplier countries to include countries such as Russia, France and the United Kingdom to pursue such measures as would restore fuel supply to India.” See text of document at http://indianembassy.org/newsite/press_release/2006/Mar/sepplan.pdf

GUIDELINES FOR NUCLEAR TRANSFERS

1. The following fundamental principles for safeguards and export controls should apply to nuclear transfers for peaceful purposes to any non-nuclear-weapon State and, in the case of controls on retransfer, to transfers to any State. In this connection, suppliers have defined an export trigger list.

Prohibition on nuclear explosives

2. Suppliers should authorize transfer of items or related technology identified in the trigger list only upon formal governmental assurances from recipients explicitly excluding uses which would result in any nuclear explosive device.

Physical protection

3. (a) All nuclear materials and facilities identified by the agreed trigger list should be placed under effective physical protection to prevent unauthorized use and handling. The levels of physical protection to be ensured in relation to the type of materials, equipment and facilities, have been agreed by the suppliers, taking account of international recommendations.

(b) The implementation of measures of physical protection in the recipient country is the responsibility of the Government of that country. However, in order to implement the terms agreed upon amongst suppliers, the levels of physical protection on which these measures have to be based should be the subject of an agreement between supplier and recipient.

(c) In each case special arrangements should be made for a clear definition of responsibilities for the transport of trigger list items.

Safeguards

4. (a) Suppliers should transfer trigger list items or related technology to a non-nuclear-weapon State only when the receiving State has brought into force an agreement with the IAEA requiring the application of safeguards on all source and special fissionable material in its current and future peaceful activities. PSS

(b) Transfers covered by paragraph 4 (a) to a non-nuclear-weapon State without such a safeguards agreement should be authorized only in exceptional cases when they are deemed essential for the safe operation of existing facilities and if safeguards are applied to those facilities. Suppliers should inform and, if appropriate, consult in the event that they intend to authorize or to deny such transfers.

(c) The policy referred to in paragraph 4 (a) and 4 (b) does not apply to agreements or contracts drawn up on or prior to April 3, 1992. In case of countries that have adhered or will adhere to INFCIRC/254/Rev. 1/Part 1 later than April 3, 1992, the policy only applies to agreements (to be) drawn up after their date of adherence.

(d) Under agreements to which the policy referred to in paragraph 4 (a) does not apply (see paragraphs 4 (b) and (c)) suppliers should transfer trigger list items or related technology only when covered by IAEA safeguards with duration and coverage provisions in conformity with IAEA doc. GOV/1621. However, suppliers undertake to strive for the earliest possible implementation of the policy referred to in paragraph 4 (a) under such agreements.

- (e) Suppliers reserve the right to apply additional conditions of supply as a matter of national policy.
- 5. Suppliers will jointly reconsider their common safeguards requirements, whenever appropriate.

Special controls on sensitive exports

- 6. Suppliers should exercise restraint in the transfer of sensitive facilities, technology and material usable for nuclear weapons or other nuclear explosive devices. If enrichment or reprocessing facilities, equipment or technology are to be transferred, suppliers should encourage recipients to accept, as an alternative to national plants, supplier involvement and/or other appropriate multinational participation in resulting facilities. Suppliers should also promote international (including IAEA) activities concerned with multinational regional fuel cycle centres.

Special controls on export of enrichment facilities, equipment and technology

- 7. For a transfer of an enrichment facility, or technology therefor, the recipient nation should agree that neither the transferred facility, nor any facility based on such technology, will be designed or operated for the production of greater than 20% enriched uranium without the consent of the supplier nation, of which the IAEA should be advised.

Controls on supplied or derived material usable for nuclear weapons or other nuclear explosive devices

- 8. Suppliers should, in order to advance the objectives of these guidelines and to provide opportunities further to reduce the risks of proliferation, include, whenever appropriate and practicable, in agreements on supply of nuclear materials or of facilities which produce material usable for nuclear weapons or other nuclear explosive devices, provisions calling for mutual agreement between the supplier and the recipient on arrangements for reprocessing, storage, alteration, use, transfer or retransfer of any material usable for nuclear weapons or other nuclear explosive devices involved.

Controls on retransfer

- 9. (a) Suppliers should transfer trigger list items or related technology only upon the recipient's assurance that in the case of:
 - (1) retransfer of such items or related technology,
 - or
 - (2) transfer of trigger list items derived from facilities originally transferred by the supplier, or with the help of equipment or technology originally transferred by the supplier;the recipient of the retransfer or transfer will have provided the same assurances as those required by the supplier for the original transfer.
- (b) In addition the supplier's consent should be required for:
 - (1) any retransfer of trigger list items or related technology and any transfer referred to under paragraph 9(a) (2) from any State which does not require full scope safeguards, in accordance with paragraph 4(a) of these Guidelines, as a condition of supply;

- (2) any retransfer of enrichment, reprocessing or heavy water production facilities, equipment or related technology, and for any transfer of facilities or equipment of the same type derived from items originally transferred by the supplier;
 - (3) any retransfer of heavy water or material usable for nuclear weapons or other nuclear explosive devices.
- (c) To ensure the consent right as defined under paragraph 9 (b), government to government assurances will be required for any relevant original transfer.

Non-proliferation Principle

10. Notwithstanding other provisions of these Guidelines, suppliers should authorize transfer of items or related technology identified in the trigger list only when they are satisfied that the transfers would not contribute to the proliferation of nuclear weapons or other nuclear explosive devices or be diverted to acts of nuclear terrorism.

Implementation

11. Suppliers should have in place legal measures to ensure the effective implementation of the Guidelines, including export licensing regulations, enforcement measures, and penalties for violations.

SUPPORTING ACTIVITIES

Physical security

12. Suppliers should promote international co-operation in the areas of physical security through the exchange of physical security information, protection of nuclear materials in transit, and recovery of stolen nuclear materials and equipment. Suppliers should promote broadest adherence to the respective international instruments, inter alia, to the Convention on the Physical Protection of Nuclear Material, as well as implementation of INFCIRC/225, as amended from time to time. Suppliers recognize the importance of these activities and other relevant IAEA activities in preventing the proliferation of nuclear weapons and countering the threat of nuclear terrorism.

Support for effective IAEA safeguards

13. Suppliers should make special efforts in support of effective implementation of IAEA safeguards. Suppliers should also support the Agency's efforts to assist Member States in the improvement of their national systems of accounting and control of nuclear material and to increase the technical effectiveness of safeguards.

Similarly, they should make every effort to support the IAEA in increasing further the adequacy of safeguards in the light of technical developments and the rapidly growing number of nuclear facilities, and to support appropriate initiatives aimed at improving the effectiveness of IAEA safeguards.

Trigger list plant design features

14. Suppliers should encourage the designers and makers of trigger list facilities to construct them in such a way as to facilitate the application of safeguards and to enhance physical protection, taking also into consideration the risk of terrorist attacks. Suppliers should promote protection of information on the design of trigger list installations, and stress to recipients the necessity of doing

so. Suppliers also recognize the importance of including safety and non-proliferation features in designing and construction of trigger list facilities.

Consultations

15. (a) Suppliers should maintain contact and consult through regular channels on matters connected with the implementation of these Guidelines.
- (b) Suppliers should consult, as each deems appropriate, with other Governments concerned on specific sensitive cases, to ensure that any transfer does not contribute to risks of conflict or instability.
- (c) In the event that one or more suppliers believe that there has been a violation of supplier/recipient understandings resulting from these Guidelines, particularly in the case of an explosion of a nuclear device, or illegal termination or violation of IAEA safeguards by a recipient, suppliers should consult promptly through diplomatic channels in order to determine and assess the reality and extent of the alleged violation.

Pending the early outcome of such consultations, suppliers will not act in a manner that could prejudice any measure that may be adopted by other suppliers concerning their current contacts with that recipient.

Upon the findings of such consultations, the suppliers, bearing in mind Article XII of the IAEA Statute, should agree on an appropriate response and possible action which could include the termination of nuclear transfers to that recipient.

16. Unanimous consent is required for any changes in these Guidelines, including any which might result from the reconsideration mentioned in paragraph 5.

UNCLASSIFIED
ConfidentialStatement on Civil Nuclear Cooperation with India

1. At the _____ Plenary meeting on _____ the Participating Governments of the Nuclear Suppliers Group agreed that they:
 - a. Desire to contribute to an effective non-proliferation regime, and to the widest possible implementation of the objectives of the Treaty on the Non-Proliferation of Nuclear Weapons;
 - b. Seek to limit the further spread of nuclear weapons;
 - c. Wish to pursue mechanisms to affect positively the conduct of those outside the Treaty;
 - d. Seek to promote international cooperation in the research, development and the safe use of nuclear energy for peaceful purposes; and
 - e. Recognize the promise of nuclear power in India as a clean source of energy for sustained economic growth and prosperity.

2. In this respect, Participating Governments have taken note of steps that India has taken to contribute to the non-proliferation regime and they welcome India's efforts with respect to the following commitments and actions:
 - a. Has publicly designated civil nuclear facilities which will be submitted to IAEA safeguards in perpetuity;
 - b. Has committed to continue its moratorium on nuclear testing, and to work with others towards achievement of a Fissile Material Cutoff Treaty;
 - c. Has committed to sign and adhere to an Additional Protocol covering designated civil nuclear facilities;
 - d. Has committed to support international efforts to restrain the spread of sensitive nuclear technologies;
 - e. Has adopted a national export control system capable of effectively controlling transfers of multilaterally controlled nuclear and nuclear-related material, equipment and technology;

- f. Has committed to adhere to the Nuclear Supplier Group Guidelines.
3. For these reasons, Participating Governments have adopted the following policy on civil nuclear cooperation by Participating Governments with the peaceful safeguarded Indian civil nuclear power program.
4. Notwithstanding paragraphs 4(a), 4(b) and 4(c), of INFCIRC/254/Part 1 as revised (the NSG Guidelines), Participating Governments may transfer trigger list items and/or related technology for use in civil nuclear facilities in India, in accordance with paragraph 4(d) as long as the Participating Government intending to make the transfer is satisfied that India is continuing to meet all of the aforementioned non-proliferation and safeguards commitments, and that the contemplated transfer complies with all of the other conditions of the NSG Guidelines.
5. Participating Governments, in accordance with paragraph 4(d), of the NSG Guidelines, will continue to strive for the earliest possible implementation of the policy referred to in paragraph 4(a) with respect to transfers of trigger list items and related technology to India.
6. The NSG Point of Contact is requested to submit this Statement to the IAEA Director General with a request that he circulate it to all Member States.