AGREEMENT BETWEEN THE UNITED STATES DEPARTMENT OF ENERGY
AND THE MINISTRY OF THE RUSSIAN FEDERATION FOR ATOMIC
ENERGY CONCERNING THE TRANSFER OF SOURCE MATERIAL TO THE
RUSSIAN FEDERATION

The United States Department of Energy ("the U.S. Party") and the Ministry of the
Russian Federation for Atomic Energy ("the Russian Party"), hereinafter referred to as
the Parties,

Desiring to facilitate implementation of the Agreement between the Government of the
United States of America and the Government of the Russian Federation Concerning the
Disposition of Highly Enriched Uranium Extracted from Nuclear Weapons, signed at
Washington on February 18, 1993 (the "HEU-LEU Agreement"),

Have agreed as follows:

Article 1

The U.S. Party shall, in accordance with and subject to applicable treaties, laws,
regulations and licensing requirements of the United States of America, arrange for the
distribution to the Russian Party of uranium hexafluoride delivered to the Russian
Executive Agent under section 3112 (b)(3) of the USEC Privatization Act, 42 U.S.C.
2297h-10(b)(3). The amount of such uranium hexafluoride to be so distributed ("source
material transferred pursuant to this Agreement") shall be the amount of such uranium
hexafluoride not initially sold or transferred by the Russian Executive Agent pursuant to
the conclusion of the commercial contract between AP Techsnabexport and the
Companie General des Matieres Nucleaires (COGEMA), Cameco Uranium, Inc., Nukem,
Inc. and Nukem Nuklear GmbH, contract no. 08843672/90100-02D ("the Commercial
Agreement"), entered into in accordance with Article II. 1 of the HEU-LEU Agreement.

Article 2

1. The Russian Party agrees to use source material transferred pursuant to this Agreement
only for the following purposes:

   a) storage and use in accordance with Article 7 of this Agreement.

   b) sale in accordance with the Commercial Agreement

2. Source material transferred pursuant to this Agreement, or any other nuclear material
that is substituted for such material pursuant to the Administrative Arrangement entered
into pursuant to paragraph 3 of the Agreement effected by the exchange of diplomatic
notes between the Government of the United States of America and the Government of
the Russian Federation dated March 24, 1999 (the "Assurances Agreement"), shall be
subject to the conditions set forth in the Assurances Agreement.
**Article 3**

The activities of the Parties under this Agreement shall be subject to the availability of appropriated funds.

**Article 4**

The Parties may, as appropriate, enter into implementing arrangements to carry out the provisions of this Agreement.

In the case of any inconsistency between this Agreement and any such implementing arrangements, the provisions of this Agreement shall prevail.

**Article 5**

The Russian Party takes responsibility for preparing for transportation and for transporting to the Russian Federation the source material transferred pursuant to this Agreement. Any cost incurred by the U.S. Party, with the concurrence of the Russian Party, in arranging for such transportation shall be reimbursed by the Russian Party.

**Article 6**

1. Pursuant to the Implementing Agreement contained in the Annex, which is an integral part of this Agreement, the U.S. Party shall purchase from the Russian Party feed component associated with the 1997 and 1998 LEU deliveries under the HEU-LEU Agreement.

2. The Russian Party shall make available for purchase feed component associated with the 1997 and 1998 LEU deliveries under the HEU-LEU Agreement.

**Article 7**

In order to facilitate the implementation of the HEU-LEU Agreement,

1. The U.S. Party shall, subject to applicable U.S. law, maintain for ten years a stock of no less than 22,000 metric tons of natural uranium equivalent, including the uranium associated with the 1997 and 1998 LEU deliveries pursuant to Article 6 of this Agreement. By written agreement of the Parties, the stock may be reduced, through the withdrawal of uranium, in order to ensure the reliability of deliveries under the Commercial Agreement in accordance with Article 4 of the Agreement.

2. The Russian Party shall maintain for the duration of the HEU-LEU Agreement a separate stock of source material transferred to Russia pursuant to this Agreement. Such material may be withdrawn from this stock only for the following purposes:
(a) up to 2580 metric tons per year for diluting HEU for delivery as LEU to the United States under the HEU-LEU Agreement;
(b) sale directly or through its duly appointed agent, in accordance with the Commercial Agreement and the Assurances Agreement; or

(c) provided that a stock of at least 22,000 metric tons is maintained, any material in excess of that 22,000 metric tons may be sold in the form of LEU under existing contracts to countries eligible in accordance with the Assurances Agreement.

**Article 8**

1. This Agreement, having been signed, shall enter into force upon the entry into force of the Assurances Agreement referenced in Article 2, provided that the Government of the United States of America and the Government of the Russian Federation have also notified each other that they have endorsed the conclusion of the Commercial Agreement referred to in Article 1.

2. This Agreement may be amended by written agreement of the Parties.

3. Each Party shall have the right to terminate this Agreement upon no less than 12 months' written notification to the other Party of its intention to do so.

Done at Washington this twenty-fourth day of March, 1999, in duplicate in the English and Russian languages, both texts being equally authentic.

FOR THE UNITED STATES DEPARTMENT OF ENERGY:

Bill Richardson

FOR THE RUSSIAN FEDERATION MINISTRY OF THE FOR ATOMIC ENERGY:

Yevgeny Adamov

**ANNEX TO THE AGREEMENT BETWEEN THE UNITED STATES DEPARTMENT OF ENERGY AND THE MINISTRY OF THE RUSSIAN FEDERATION FOR ATOMIC ENERGY CONCERNING THE TRANSFER OF SOURCE MATERIAL TO THE RUSSIAN FEDERATION ("TRANSFER AGREEMENT")**

**IMPLEMENTING AGREEMENT**

WHEREAS, the Government of the Russian Federation is delivering low-enriched uranium derived from highly enriched uranium under the Agreement Between the
WHEREAS, the Russian Federation owns natural uranium used for manufacturing low-enriched uranium associated with such deliveries and an equivalent quantity of which is returned into the ownership of the Russian Federation in the United States territory (hereafter "feed component");

WHEREAS, in 1998 the United States Congress passed legislation providing $325 million for the Department of Energy to purchase the feed component associated with the 1997 and 1998 deliveries under the HEU-LEU Agreement, provided that certain requirements are met, including the conclusion of a long-term agreement by the Government of the Russian Federation and commercial partners for the sale of the feed components to be derived from the deliveries scheduled for 1999 and thereafter under the HEU-LEU Agreement;

NOW THEREFORE, MINATOM and DOE agree as follows:

1. MINATOM shall make available for purchase by DOE 6,917,225.13 kilograms of feed component associated with 1997 and 1998 deliveries of low-enriched uranium under the HEU-LEU Agreement. The feed component is located at Portsmouth Gaseous Diffusion Plant or the Paducah Gaseous Diffusion Plant in the United States. Title, possession and risk of loss to one half of this feed component shall transfer to DOE 30 days after the date of entry into force of the Transfer Agreement, or 20 days after receipt by MINATOM of notification from DOE that requirements under U.S. law have been met, whichever is later. Title, possession and risk of loss to the second half of this feed component shall transfer to DOE 60 days after the date of entry into force of the Transfer Agreement, or 20 days after receipt by MINATOM of notification from DOE that requirements under U.S. law have been met, whichever is later.

2. MINATOM shall make available for purchase by DOE an additional 3,082,774.87 kilograms of feed component associated with orders for low-enriched uranium under the HEU-LEU Agreement for 1998 but not yet delivered. MINATOM shall seek to deliver this uranium to the United States as expeditiously as possible in 1999. MINATOM shall notify DOE when it is prepared to deliver 3,082,774.87 kilograms of this feed component. Title to this feed component shall transfer to DOE 30 days after the notification to DOE, unless MINATOM has not received notification by DOE that requirements under U.S. law have been met; in such case, title shall transfer to DOE 20 days after
receipt by MINATOM of notification from DOE that requirements under U.S. law have been met.

3. MINATOM shall notify the DOE when it is prepared to provide the final 1,000,000 kilograms of feed component associated with 1998 deliveries. Title to this feed component shall transfer to the Department 30 days after the notification to DOE, unless MINATOM has not received notification by DOE that requirements under U.S. law have been met; in such case, title shall transfer to DOE 20 days after receipt by MINATOM of notification from DOE that requirements under U.S. law have been met.

4. MINATOM has the responsibility for the above-mentioned feed component until the dates of transfer.

5. MINATOM has the responsibility for acquisition of the cylinders that contain the feed component. The purchase price paid by the United States includes rental of the cylinders that contain this uranium for as long as the uranium is owned by the United States. DOE has no further obligation to pay for use of these cylinders.

6. DOE shall pay MINATOM or its designee $204,372,560.66 upon transfer of the feed component pursuant to paragraph 1. DOE shall pay MINATOM or its designee $91,081,984.80 upon transfer of the feed component pursuant to paragraph 2. DOE shall pay MINATOM or its designee $29,545,454.54 upon transfer of the feed component pursuant to paragraph 3. Such payments shall be made electronically to AO Techsnabexport, Account No.4070284000000000010, Conversbank, Moscow, Russian Federation, through the account of Conversbank, Account No. 04-094-462 in Bankers Trust Company, New York, New York, ABA No. 021001033, within three business days of each transfer of feed component.

7. All notices and contacts concerning this agreement are to be made in writing, in English, and shall be submitted to the following address by mail or fax:

DOE:

U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC  20585
phone: 202-586-5569
fax: 202-586-7210

MINATOM:

Ministry of the Russian Federation for Atomic Energy
Staromonetnyy per. 26
109180 Moscow
ADMINISTRATIVE ARRANGEMENT

In order to provide for the effective implementation of the Agreement between the Government of the United States of America and the Government of the Russian Federation with respect to the transfer of source material, effected by an exchange of diplomatic notes on this date (hereinafter "the Assurances Agreement"), the United States Department of Energy ("the U.S. Party") and the Ministry of Atomic Energy of the Russian Federation ("the Russian Party") (hereinafter "the Parties") hereby establish the following Administrative Arrangement.

Channels of Communication:

Pursuant to this Administrative Arrangement the Parties will communicate directly using appropriately secure channels.

Accounting for and Control of Subject Nuclear Material:

The Russian Party shall provide nuclear material accounting and control covering all source material transferred pursuant to the Agreement between the United States Department of Energy and the Ministry of the Russian Federation for Atomic Energy Concerning the Transfer of Source Material to the Russian Federation ("the Transfer Agreement"), signed today, or any nuclear material that is substituted for such material pursuant to this Administrative Agreement.

The Russian Party shall provide to the U.S. Party annually by May 1, through diplomatic channels, an official report on source material transferred pursuant to the Transfer Agreement, or any nuclear material that is substituted for such material pursuant to this Administrative Arrangement, which is within the jurisdiction of the Russian Federation as of December 31 of the preceding year, including a list of permitted withdrawals or sales.

The report shall include beginning and ending inventories, to include quantities, categories (natural uranium or LEU), cylinder number, gross weight, tare weight, shipper, receiver, date received, date removed from storage for shipment from Russia (if applicable), chemical and physical form, and location.

The U.S. Party shall provide prior notification to the Russian Party of each shipment of source material to include cylinder number, gross weight, tare weight, shipper, intended receiver, date shipped (if known), chemical and physical form, and location.
The Russian Party shall provide the U.S. Party notification of receipt of each shipment of source material indicating cylinder number, gross weight, tare weight, shipper, intended receiver, date shipped (if known), chemical and physical form, and location.

Nuclear material included on the inventory shall remain listed until (a) it has, consistent with the Assurances Agreement, been transferred beyond the jurisdiction of the Russian Federation or (b) the Parties agree that it is no longer usable for any nuclear activity relevant from the point of view of international safeguards or has become practically irrecoverable.

The inventory of nuclear material, and the annual report thereon, need not identify physically the particular nuclear material initially subject to the Assurances Agreement, but shall at all times identify an equivalent quantity, provided, that the principle of equivalence shall not be used to reduce the quality of the nuclear material subject to the Assurances Agreement. In particular, the Russian Party may substitute low enriched uranium of equivalent U-235 content for source material subject to the Assurances Agreement. It is understood that such substituted low enriched uranium may be delivered to the United States of America in accordance with the HEU-LEU Agreement or may be delivered to eligible countries or groups of countries in accordance with the provisions of paragraph 5 of the Assurances Agreement. Such substituted low enriched uranium, upon delivery to the United States of America or a third country, will be removed from the inventory of nuclear material subject to the Assurances Agreement.

**Monitoring:**

In order to provide confidence that the terms of the Assurances Agreement are being implemented, the United States of America shall have the right to conduct one annual inventory of cylinders containing uranium subject to the Assurances Agreement in storage in Russia. During this inventory, U.S. monitors shall have the right to visually check serial numbers on cylinders in storage and compare them with numbers declared by the Russian Party in the annual report. Additional procedures, as necessary, may be agreed upon by the Parties and will be the subject of an annex to this Administrative Arrangement.

**Reporting:**

Each party may, at its discretion, provide access to reports prepared under this Administrative Arrangement.

**Amendment:**

This Administrative Arrangement may be amended by written agreement of the Parties.

**Effective Date:**
DIPLOMATIC NOTES

US Diplomatic Note 1 — "Assurances Agreement"

The Department of State of the United States of America [in the Russian note, it is the Ministry of Foreign Affairs of the Russian Federation] presents its compliments to the Embassy of the Russian Federation [or in the Russian note, the State Department of the U.S.] in the United States of America and has the honor to propose the following Agreement concerning the transfer of source material from the United States of America to the Russian Federation pursuant to the Agreement between the United States Department of Energy and the Ministry of the Russian Federation for Atomic Energy Concerning the Transfer of Source Material to the Russian Federation ("the Transfer Agreement"), signed March 24, 1999.

1. The agreement proposed hereinafter shall constitute the Agreement Between the Government of the United States of America and the Government of the Russian Federation ("the Parties") regarding assurances concerning the source material transferred from the United States to the Russian Federation ("the Assurances Agreement"), in implementation of the Agreement Between the Government of the United States of America and the Government of the Russian Federation Concerning the Disposition of Highly Enriched Uranium Extracted from Nuclear Weapons, signed on February 18, 1993 ("the HEU-LEU Agreement").

2. The Government of the Russian Federation agrees that no special nuclear material shall be produced by the Russian Federation or under the jurisdiction or
control of the Russian Federation through the use of source material transferred pursuant to the Transfer Agreement.

3. The Department of Energy of the United States of America ("DOE") and the Ministry of the Russian Federation for Atomic Energy ("MINATOM") are establishing an Administrative Arrangement in order to provide for the effective implementation of the provisions of the Assurances Agreement. This Administrative Arrangement may be amended by written agreement between DOE and MINATOM. The principles of fungibility, equivalence and proportionality shall apply to nuclear material subject to the Assurances Agreement and the Transfer Agreement and the detailed provisions thereof shall be set out in the Administrative Arrangement.

4. The Government of the Russian Federation agrees that:

(a) Source material transferred pursuant to the Transfer Agreement, or any nuclear material that is substituted for such material pursuant to the Administrative Arrangement, shall be subject to agreed bilateral tracking and monitoring arrangements.
(b) Source material transferred pursuant to the Transfer Agreement, or any nuclear material that is substituted for such material pursuant to the Administrative Arrangement, shall not be used for any nuclear explosive device or for research on, or development of, any nuclear explosive device, or for any other military purpose.
(c) Adequate physical protection measures shall be maintained with respect to source material transferred pursuant to the Transfer Agreement or any nuclear material that is substituted for such material pursuant to the Administrative Arrangement. To fulfill this requirement, such measures shall be applied in accordance with levels of physical protection at least equivalent to the recommendations published in the IAEA document INFCIRC/225/Rev. 4 entitled "The Physical Protection of Nuclear Material," or a subsequent revision accepted by the Parties.
(d) Source material transferred pursuant to the Transfer Agreement, or any nuclear material that is substituted for such material pursuant to the Administrative Arrangement, shall not be transferred to unauthorized persons or beyond the jurisdiction or control of the Russian Federation without the prior consent of the Government of the United States of America.
(e) Source material transferred pursuant to the Transfer Agreement, or any nuclear material that is substituted for such material pursuant to the Administrative Arrangement, shall not be reprocessed or altered in form or content without the prior consent of the Government of the United States of America.
(f) Source material transferred pursuant to the Transfer Agreement, or any nuclear material that is substituted for such material pursuant to the
Administrative Arrangement, shall not be enriched without the prior consent of the Government of the United States of America.

5. The Government of the United States of America agrees that source material transferred pursuant to the Transfer Agreement and low enriched uranium substituted for source material transferred pursuant to the Transfer Agreement may, pursuant to contracts existing on the date of entry into force of the Transfer Agreement, be retransferred by the Russian Federation to countries or groups of countries with which the United States of America has in force an agreement for peaceful nuclear cooperation and that are otherwise acceptable to the United States. The list of acceptable countries or groups of countries is set forth in the Annex to the Assurances Agreement. The Government of the United States of America may add eligible countries or groups of countries to the list at any time, and may delete countries or groups of countries from the list following consultations with the Government of the Russian Federation. MINATOM shall keep records of such retransfers and shall promptly notify an agency designated by the Government of the United States of America of each retransfer. Prior to each retransfer, MINATOM shall confirm in writing to the aforesaid agency of the Government of the United States of America that the nuclear material to be retransferred will be subject to an agreement for peaceful nuclear co-operation between the United States of America and the countries or groups of countries receiving the nuclear material.

6. The Parties agree that if the Transfer Agreement is terminated, any source material transferred pursuant to the Transfer Agreement, or any nuclear material that is substituted for such material to the Administrative Arrangement, will continue to be subject to the conditions set forth in the Assurances Agreement.

7. Subject to the above, source material transferred pursuant to the Transfer Agreement may be used, as specified in Article 7 of the Transfer Agreement, for diluting HEU for delivery as LEU to the United States of America under the HEU-LEU Agreement or for sale in accordance with the Commercial Agreement and paragraph 5 of the Assurances Agreement.

If these proposals are acceptable to the Government of the Russian Federation, it is further proposed that this note, together with the Embassy's affirmative note of reply, on behalf of the Government of the Russian Federation, shall constitute an agreement between the Government of the United States of America and the Government of the Russian Federation (the "Assurances Agreement"), which shall enter into force on the date of the Embassy's note in reply.

Enclosure: One page as indicated

Department of State,
ANNEX: LIST OF COUNTRIES AND GROUPS SPECIFIED IN ACCORDANCE WITH PARAGRAPH 5 OF THE ASSURANCES AGREEMENT

The Argentine Republic
Australia
The Republic of Bulgaria
Canada
The People's Republic of China
The Czech Republic
European Atomic Energy Community
The Republic of Hungary
Japan
The Republic of Korea
Norway
The Republic of Poland
The Slovak Republic
The Republic of South Africa
Switzerland

US Diplomatic Note 2

The Department of State reports to the Embassy of the Russian Federation in the United States of America the following:

The Government of the United States of America has the honor to refer to the Agreement between the Government of the United States of America and the Government of the Russian Federation on the Disposition of Highly Enriched Uranium extracted from Nuclear Weapons of February 18, 1993, hereinafter referred to as the HEU-LEU Agreement.

The Government of the United States of America takes it as axiomatic that resolution of the issue of the sale of natural uranium in hexafluoride form, title to which is transferred to the Russian Federation on the territory of the United States of America in quantities equivalent to the feed component of low-enriched uranium delivered to the United States of America under the HEU-LEU Agreement, is central to the smooth implementation of the said Agreement and that therefore it is necessary to develop a consistent, long-term approach to the management of this material. The Government of the United States considers that this task can best be accomplished by Russia concluding, with a reliable partner having longstanding experience in business transactions involving uranium, a
long-term agreement for the sale by the Government of the Russian Federation of the said material, obtained from the U.S. side in the course of the low-enriched uranium deliveries planned for 1999 and subsequent years under the HEU-LEU Agreement.

In accordance with Article II. 1 of the HEU-LEU Agreement, the Government of the United States endorses the conclusion, to this end, of a Commercial Agreement, contract #08843672/90100-02D, among AO Techsnabexport and Companie Generale des Matieres Nucleaires (COGEMA), Cameco Uranium, Inc., Nukem, Inc., and Nukem Nuklear GmbH.

The Department of State affirms that a reply note from the Government of the Russian Federation attesting that the Government of the Russian Federation has also endorsed the conclusion of a Commercial Agreement, contract #08843672/90100-02D, among the AO Techsnabexport and Compagnie Generale des Matieres Nucleaires (COGEMA), Cameco Uranium, Inc., Nukem, Inc., and Nukem Nuklear GmbH, will satisfy the provision of Article 8.1 of the Agreement between the Ministry of the Russian Federation for Atomic Energy and the Department of Energy of the United States of America Concerning the Transfer of Source Material to the Government of the Russian Federation, which requires the endorsement of both Governments for the entry into force of the Transfer Agreement.

Department of State,

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DECREES

Government of the Russian Federation, No. 307, March 18, 1999, Moscow:

In order to facilitate the transfer of natural uranium in the form of hexafluoride (hereinafter "feed component") to the Russian Federation, title to which has passed to the Russian Federation on the territory of the United States of America in quantities which are equivalent to the [amount of] feed material of the low enriched uranium delivered to the U.S. in accordance with the agreement between the government of the Russian Federation and the government of the U.S. on the use of high-enriched uranium derived from nuclear weapons dated Feb. 18, 1993 (hereinafter the "agreement of Feb. 18, 1993") and the completion of payments for low-enriched uranium delivered to the U.S. in 1997-1998 in accordance with the Agreement of Feb. 18, 1993, the Government of the Russian Federation decrees:

1. To approve the text of the diplomatic note of the government of the Russian Federation to the government of the U.S. concerning the transfer of the feed material from the U.S. to the Russian Federation, as presented by the Ministry of Atomic Energy of the Russian Federation and as agreed to by the Ministry of

To instruct the Ministry of Foreign Affairs of the Russian Federation to effect the exchange of diplomatic notes between the government of the Russian Federation and the U.S.


3. To direct the Ministry of Atomic Energy of the Russian Federation to:

To execute through the joint stock company Techsnabexport a long-term contract with the companies Cameco (Canada), Cogema (France), and Nukem (Germany) for the sale of the feed material in 1999 and following years, having in mind that the entire quantity of feed material not sold under such contract shall be subject to transfer to the Russian Federation for storage, used for processing of low-enriched uranium within the framework of the Agreement of Feb. 18, 1993, and also for possible additional deliveries in the form of natural or low-enriched uranium to the U.S. and third countries.

Upon implementation of the Transfer Agreement and the Administrative Agreement described in article 2 of this Decree, considering that insertion of changes and amendments may be made only by agreement with interested federal organs of executive power, with the participation of interested federal organs of executive power:

To adopt measures for the organization of monitoring of the feed material transferred to a specially equipped stockpile with activities which shall exclude the possibility of the receipt by the American side of information which constitutes a state secret and the minimization of administrative procedures related to the storage and use of such material and the minimization of expenses for its transportation to the Russian Federation;
Within two months after the signing of the Transfer Agreement to bring before the Government of the Russian Federation a draft decree specifying the procedure for transferring the unsold feed component to the Russian Federation and specifying the order of its use, including methods of its possible sale.

**Government of the Russian Federation, No. 308, March 18, 1999, Moscow:**

In order to ensure the long term sale of natural uranium in the form of hexafluoride, title to which has passed to the Russian Federation in the territory of the United States of America in quantities equivalent to the natural feed component of the low enriched uranium delivered to the U.S. in accordance with the Agreement between the Government of the Russian Federation and the Government of the U.S. on the use of high enriched uranium derived from nuclear weapons dated Feb. 18, 1993, the Government of the Russian Federation decrees:

To approve the text of the diplomatic note of the Government of the Russian Federation to the Government of the U.S. concerning the approval of the execution of a commercial agreement ("Contract") between the Joint Stock Company Techsnabexport and the group of Western companies Cameco (Canada), Cogema (France), and Nukem (Germany) on the delivery of natural uranium in connection with the implementation of the Agreement between the Government of the Russian Federation and the Government of the U.S. on the use of high-enriched uranium derived from nuclear weapons date Feb. 18, 1993 as presented by the Ministry of Atomic Energy of the Russian Federation in agreement with the Ministry of Foreign Relations of the Russian Federation, the Ministry of Finance of the Russian Federation, the Ministry of Economy of the Russian Federation, the Federal Security Service of the Russian Federation.

To instruct the Ministry of Foreign Affairs of the Russian Federation to effect the exchange of diplomatic notes between the government of the Russian Federation and the U.S.