

## 15 NEWLY-INDEPENDENT STATES

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### ARMENIA

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#### INTERNAL DEVELOPMENTS

2/94

Armenia's Minister of Energy and Fuel Resources Miron Sheshmanali reports that it is essential for the rebuilding of Armenia's power generating industry to restart the nuclear power plant.

*Novosti*, 5/2/94; in *Russia & CIS Today*, 5/2/94, No. 0315, p. 9 (11154).

#### ARMENIA WITH RUSSIA

2/17/94

Armenian Prime Minister Grant Bagratyan and Russian First Vice-President Oleg Soskovets sign a preliminary agreement on Russian technical aid and expertise for reactor renovations at the Metsamor nuclear power plant.

*Russia & Republics Nuclear Industry*, 5/25/94, p. 18 (11398).

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*The numbers listed in parenthesis following the bibliographic references refer to the identification number of the document in the Emerging Nuclear Suppliers Project Database, from which the news summaries are abstracted. Because of the rapidly changing nature of the subject matter, The Nonproliferation Review is unable to guarantee that the information reported herein is complete or accurate, and disclaims liability to any party for any loss or damage caused by errors or omissions.*

3/17/94

A secondary agreement is signed in Moscow between Russian First Deputy Minister Oleg Soskovets and Armenian Prime Minister Grant Bagratyan regarding the renovations and reactivation of the Metsamor nuclear power plant. The agreement will create an intergovernmental committee for the renovation project. Minatom and Gosatomnadzor will represent Russia on the committee, while the Armenian Energy Ministry and the Armenian State Directorate for the Supervision of Nuclear Energy will represent Armenia. Russia will provide nuclear fuel, engineering services, assistance in the development of a nuclear power management structure in Armenia, and technical servicing of the power station. The committee will oversee site investigations, safety renovations, preparation of the reactors to operate at full power generating capacity, technical training and assistance, regulation, and exports of nuclear fuel from Russia to Armenia. Armenia also agrees to waive all export duties for the equipment from Russia, and to provide free travel for 560 Russian experts and their families. Armenia will adopt Russia's regulations on nuclear safety, and guarantee that none of the materials used by or resulting from the plant will be used for the production of nuclear weapons or other military hardware. Armenia will pay for the project, which means part of the project could be financed by a 40 billion ruble credit extended by Russia to Armenia. The Metsamor power plant will be monitored by the IAEA and will be brought on line only after the IAEA's approval.

*Russia & Republics Nuclear Industry*, 5/25/94, p. 18 (11398). Radio First Program Network (Yerevan), 3/17/94; in FBIS-SOV-94-053, 3/18/94, p. 47 (11398). Sanobar Shermatova, *Moskovskiy Novosti*, 3/27-4/3/94, p. A10 (11339).

#### ARMENIA WITH THE FORMER SOVIET UNION

4/4/94

The Romanian newspaper *Romania Libera* publishes allegations that the former Soviet Union may have used a seismic weapon called the Elipton to trigger a major earthquake in Armenia. According to the article, U.S. military intelligence experts noted that the earthquake occurred at a time when the Soviet authorities would have wanted to destroy Armenia's nuclear industry in order to ensure the republic's continued dependence on the USSR.

Oana Stanciulescu, *Romania Libera* (Bucharest), 4/4/94, p.1; in FBIS-SOV-94-068, 4/8/94, pp. 25-26 (11409).

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### BELARUS

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#### BELARUS WITH JAPAN

1/24/94

The Japanese Foreign Ministry states that by 3/94 Japan plans to complete the outline agreement for an aid package to Belarus for the destruction of nuclear weapons previously owned by the USSR. Diplomats from Japan are discussing how much of the \$100 million package, allotted to the CIS in 4/93, will go to Belarus.

*Itar-Tass* (Moscow), 1/24/94; in JPRS-TND-94-005, 2/25/94, p. 51 (11156).

#### BELARUS WITH LITHUANIA

3/94

During a conference in Vilnius, the Lithuanian-European Institute proposes to

add a third reactor to the Ignalina nuclear power plant in Lithuania. The director of special projects for the Swedish Nuclear Power Inspectorate, Jan Nistad, estimates that the new reactor would cost \$2 billion. The project could not be funded by Lithuania alone, Nistad said, but a coalition of the Baltic states and Belarus could provide the money.

*Nucleonics Week*, 3/31/94, p. 14 (11406).

#### BELARUS WITH LITHUANIA AND SWEDEN

3/25/94

In response to rumors that Sweden's aid to the Ignalina nuclear power plant will be stopped because of problems in securing third-party liability agreements from Belarus, the Swedish Embassy in Vilnius issues a statement that technical aid will continue. Only one of the projects planned by Sweden for the Ignalina plant will affect Belarus, while nineteen others can be implemented without the liability agreements. The Swedish Environment & Natural Resources Department has requested approximately \$7 million for nuclear assistance projects in the Baltics, most of which would go to the Ignalina plant.

Radio Vilnius Network (Vilnius), 3/25/94; in FBIS-SOV-94-059, 3/28/94, p. 73 (11404). Ariane Sains, *Nucleonics Week*, 2/3/94, p. 12 (11404).

#### BELARUS WITH RUSSIA

5/10/94

The Ministry of Energy in Belarus and the Smolensk Electric Power Station in Russia sign a five-year nuclear technology and expertise exchange agreement.

Viktor Artemenko, *Pravda* (Moscow), 5/11/94, p. 1 (11328).

5/20/94

Belarus makes its first shipment of strategic nuclear missiles to Russia under the START-I accord. Belarus is scheduled to transfer half of its 72 SS-25 missiles during 1994, and the other half during 1995.

Reuter (Minsk), 5/20/94 (11235).

#### BELARUS WITH UNITED STATES

5/94

The head of the Belarusian Defense Ministry's Scientific and Technical Committee, Vasil Puhachow, indicates that Belarus is counting on the U.S. to help fund its nuclear demobilization and environmental cleanup. The U.S. has pledged \$100 million in disarmament aid to Belarus.

Valer Kalinowski, *Zvyazda*, 5/6/94, pp. 1-2; in FBIS-SOV-94-003, 5/13/94, pp. 51-54 (11405). Reuter (Minsk), 5/20/94 (11235).

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### ESTONIA

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#### INTERNAL DEVELOPMENTS

2/17/94

Raul Luks, the newly appointed governor of the former nuclear training base at Paldiski, says that there is no secret underwater submarine port within the facility.

ETA News Release (Tallinn), 2/17/94; in FBIS-SOV-94-035, 2/22/94, p. 55 (10329).

4/94

The Baltic Fleet press center denies the validity of the reports that the Baltic Fleet's Tallinn base illegally sold several out-of-service hover landing craft which housed radioactive substances.

Mayak Radio Network (Moscow), 4/9/94; in FBIS-SOV-94-069, 4/11/94, p. 14 (11234).

4/6/94

Estonia's parliament, the Riigikogu, adopts a law which will regulate the export and transit of strategic weapons. Andres Tarand, Estonia's Environment Minister, says that the new export control law regulates the export and transit of chemical, biological, and nuclear weapons, and that it will enable other countries to sell missiles or other weapons through Estonian ports.

ETA (Tallinn), 4/6/94; in FBIS-SOV-94-67, 4/7/94, p. 67 (11227).

#### ESTONIA WITH RUSSIA

3/15/94

Estonian Environment Minister Andres Tarand announces that Russia will begin removing nuclear fuel on 4/6/94 from the two reactors located at Paldiski, Estonia. The Estonian government names its Rescue Department, the Environment Ministry, the Estonian Railways, and the Economics Ministry as those agencies responsible for safety during the removal operation.

BNS (Tallinn), 3/15/94; in FBIS-SOV-94-051, 3/16/94, p. 55 (11361).

3/22/94

The Estonian Cabinet permits a group of Russia military advisors to enter Estonia in order to participate in the dismantling of two nuclear reactors at the Paldiski naval base. The Russian troops at Paldiski are expected to leave Estonia by 8/31/95, after which the dismantling process is expected to be completed.

BNS (Tallinn), 3/23/94; in FBIS-SOV-94-056, 3/23/94, p. 52 (11318). *Foreign Report*, 3/31/94 (11318).

4/94

General Director of the Estonian Police Yuriy Pikul accuses unit commanders and senior officers of Russia's Northern Group of Forces stationed in Estonia of selling radioactive materials to the West, citing the sale of "at least five highly radioactive articles made of metal." Pikul says several radioactive turbine sections of two air-cushion vessels, whose metal was scrapped and sold to Finland by Tallinn commanders, have disappeared without a trace.

Russian Television and Dubl Networks (Moscow), 4/3/94; in FBIS-SOV-94-064, 4/4/94, p. 69 (11248).

4/8/94

Estonia puts forward a new timetable for the removal of nuclear fuel from the Paldiski naval base, setting 6/94 as the final date for the removal of fuel. Dismantlement of the reactors as well as removal of radwaste are to be done shortly after the 6/94 deadline. Russia has yet to comment on the proposal.

BNS (Tallinn), 4/8/94; in FBIS-SOV-94-070, 4/12/94, p. 65 (11316).

**4/14/94**

Special representative of the Estonian Government in Paldiski Juri Tikk says that Russia's removal of nuclear fuel rods from its reactors at the Paldiski naval base has been postponed until the Russian group responsible for the dismantlement arrives in Paldiski, on April 22 or 23, at which time a date will be set to begin work. Russia and Estonia have already agreed on the technical issues involved in dismantling the reactors. The secretary of the Estonian delegation for talks with Russia, Ago Tiiman, says that the rods must be out of Estonia by 6/30/94 and that reactor dismantlement and waste removal should occur as soon as possible. If Russia agrees with the Estonian plan, the entire process of dismantling should take about three years.

BNS (Tallinn), 4/14/94; in FBIS-SOV-94-073, 4/15/94, p. 69 (11208).

**4/24/94**

Juri Tikk, special government representative in Paldiski, Estonia, announces that the dismantling of the two nuclear reactors at Paldiski and the removal of nuclear fuel from the facility by Russia may begin in early 5/94. Russia has not specified a date for the start of the operation and wishes to first conclude a single agreement for the dismantling and the removal of fuel, whereas Estonia wants two separate agreements. The Estonian government has allocated 1.4 million kroons to cover the costs of the dismantling operation. A large portion of this funding comes from foreign aid specifically earmarked for this purpose.

BNS (Tallinn), 4/22/94; in FBIS-SOV-94-097, 4/25/94, p. 98 (11347). BNS (Tallinn), 5/12/94; in FBIS-SOV-94-093, 5/13/94, p. 66 (11347).

**4/26/94**

Estonia announces the formation of a national commission to supervise Russia's removal of two nuclear reactors at the Paldiski naval base.

Radio Tallinn Network, 4/26/94; in FBIS-SOV-94-082, 4/28/94, p. 85 (11319).

## GEORGIA

### INTERNAL DEVELOPMENTS

**3/7/94**

Georgia becomes the 163rd state party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the tenth state from the CIS to join, by depositing its instrument of accession in Washington, D.C.

*Trust and Verify*, 4/94 (11346). *Arms Control Today*, 4/94, p. 28 (11182).

**5/94**

A machine used in cleaning up the radioactive effects of the Chernobyl disaster has been stolen from the radiological institute located in a suburb of Tbilisi, Georgia. The institute reports that the radioactive machine is hazardous to people in proximity to it.

Ostankino Television First Channel Network (Moscow), 5/9/94; in FBIS-SOV-94-090, 5/10/94, p. 31 (11231).

## KAZAKHSTAN

### INTERNAL DEVELOPMENTS

**4/94**

Victor Yazikov, the president of the Kazakhstani national uranium stock company KATEP, states that Kazakhstan has the capacity to produce U308 at a much lower cost than other countries, and that although there has been a significant fall in uranium production during 1993, the goal for 1994 is to match the 1992 production level.

*Nukem*, 5/94, p. 14-15 (11327).

### KAZAKHSTAN WITH CANADA

**4/94**

Victor Yazikov, the president of the Kazakhstani national uranium stock com-

pany KATEP, states that the recent deal to use the Canadian firms Cameco and Uranerz as agents for distribution of Kazakhstan's uranium was designed to give Kazakhstan access to the world market. However, he says that the deal with Canada does not affect existing contracts with Australia and the U.S.

*Nukem*, 5/94, p. 14-15 (11327).

### KAZAKHSTAN WITH JAPAN

**3/11/94**

Japan finalizes an agreement with Kazakhstan to assist in dismantling Kazakhstan's nuclear weapons. This agreement resembles agreements Japan has signed with Russia, Belarus and Ukraine. Japan plans to spend \$100 million for aid to these four countries.

*Nihonkeizai Shimbum*, 3/12/94 (11385).

**4/94**

Kazakhstan President Nursultan Nazarbayev visits Japan to discuss economic and disarmament issues. Japan gives a "high assessment" of the disarmament process in Kazakhstan at the close of the visit.

ITAR-TASS (Moscow), 4/6/94; in FBIS-SOV-94-067, 4/7/94, p. 55 (11385). Sergey Bunin, *Trud* (Moscow), 4/12/94, p. 6; in FBIS-SOV-94-071, 4/13/94, p. 58 (11385).

**4/7/94**

Japanese Prime Minister Morihiro Hosokawa promises \$11 million in aid to help Kazakhstan dismantle its nuclear weapons. This follows a 3/11/94 agreement made between Kazakhstan and Japan whereby Japan agreed to give Kazakhstan financial help in the disarmament process.

*Kyodo* (Tokyo), 4/7/94; in JPRS-TND-TEN-94-010, 4/15/94, p. 7 (11229). *Atoms In Japan*, 4/94, p. 41-42 (11238).

### KAZAKHSTAN WITH MULTI-COUNTRY GROUP

**5/94**

Representatives from the U.S., Japan, the U.K. and Sweden, as well as IAEA inspectors, made a ten-day visit to Almaty, Kazakhstan to review issues of accounting and control of nuclear weapons, security of

nuclear materials in Kazakhstan, and technical support.

*Kaztag* (Almaty), 5/19/94; in FBIS-SOV-94-098, 5/20/94, p. 59 (11232).

## KAZAKHSTAN WITH RUSSIA

**2/12/94**

An article in *Izvestiya* states that the storage facilities for nuclear weapons in Kazakhstan have serious and potentially dangerous deficiencies in the areas of safety and security, particularly at the Derzhavinsk site in the Turgai region, and at Zhangiz-Tobe in Semipalatinsk. The article demands a state-to-state agreement between Russia and Kazakhstan for control of base operations and troops in Kazakhstan.

Viktor Litovkin, *Izvestiya* (Moscow), 2/12/94, p. 1 (11387).

**2/13/94**

Tulegen Zhukeyev, a Kazakh state adviser, states that the 2/12/94 *Izvestiya* article exaggerated the dangers of Kazakhstan's storage facilities. Zhukeyev says that the article was intended to impede bilateral negotiations between Russia and Kazakhstan on the subject of nuclear arms, and that it reflects the distress felt by Russia that Kazakhstan has suspended the withdrawal of intercontinental ballistic missiles from its country.

Gennady Kulagin, ITAR-TASS (Moscow), 2/12/94; in JPRS-TND-94-006, 3/16/94, p. 37 (11387).  
Richard Balmforth, Executive News Service, 2/15/94 (11387).

**3/28/94**

Kazakhstan President Nursultan Nazarbayev and Russian President Boris Yeltsin sign 23 agreements, including a document of cooperation between Russia and Kazakhstan in the production and sale of uranium, beryllium and other materials.

Reuter (Moscow), 3/28/94; in Executive News Service, 3/20/94 (11196).

**3/30/94**

Kazakhstan President Nursultan Nazarbayev states in a press conference in Moscow that nuclear testing will never be resumed at the Semipalatinsk nuclear testing site. Nazarbayev states that he has considered the Semipalatinsk issue with Russian president

Boris Yeltsin and has secured Russia's aid in using the site for "peaceful purposes," possibly as a space training center or a location for nuclear safety systems testing. Russia's willingness to close down its nuclear testing operations at Semipalatinsk were further verified through a 4/28/94 Vesti broadcast in Moscow which detailed the plans to decrease and eventually eliminate Russia's servicing personnel at the site. At the time of the broadcast it was stated that only 20% of the initial number of personnel were currently at the site, and that all would be gone by 7/94.

Interfax, 3/30/94; in FBIS-SOV-94-062, 3/31/94, p. 43 (11389). S. Polyayev, *Vesti* (Moscow), 4/28/94; in FBIS-SOV-94-090, 5/10/94, p. 25 (11389).

**4/28/94**

Commander-in-chief of the Strategic Missile Forces in Russia Colonel General Igor Sergeyev states that the return of nuclear missiles to Russia from Ukraine, Belarus, and Kazakhstan is going well. Sergeyev says that there is no reason to fear that leaks of information regarding the "strategic arms command and control systems" could compromise the security of Russia's nuclear forces. All warheads will be removed from Kazakhstan by 5/94, and all launchers and missiles will be removed by 1997.

Pavel Felgengauer, *Segodnya*, 4/29/94, p. 1; in FBIS-SOV-94-083, 4/29/94, pp. 39-40 (11396).  
John Lepingwell, *RFE/RL News Briefs*, 5/13/94, p. 9 (11396).

**5/94**

The All-Union Scientific Research and Planning Institute in Moscow has designed a project for unearthing the unexploded underground nuclear charge at the Semipalatinsk testing site in Kazakhstan. Russia will cover the expenses for the project, which is expected to cost 1 billion rubles.

*Komsomolskaya Pravda* (Moscow), 5/13/94, p. 2 (11150).

## KAZAKHSTAN WITH RUSSIA AND UNITED STATES

**2/94**

Kazakhstan President Nursultan Nazarbayev, during a visit to the U.S., asks for \$1 bil-

lion in compensation for Kazakhstan's share of the nuclear materials which are now in Russia's hands. The U.S. has stated that unless proper compensation agreements are made between Russia and the countries of Belarus, Kazakhstan, and Ukraine, the U.S. will not execute a \$11.9 million agreement with Russia.

Aleksandr Gerasimov, St. Petersburg Fifth Channel Television Network, 3/20/94 (11395). NTV (Moscow), 4/28/94; in FBIS-SOV-94-083, 4/29/94, p. 60 (11395). John Diamond, *Washington Times*, 3/20/94, p. A6 (11395). *Arms Control Today*, 4/94, p. 28 (11395).

**5/17/94**

Aleksandr Volkov, the first deputy commander-in-chief of the Russian Strategic Missile Forces, states that Kazakhstan apparently wishes U.S. experts to dismantle the nuclear missiles Kazakhstan is returning to Russia, which violates the agreement made between Russia and Kazakhstan on the transfer, dismantling, and elimination of the missiles. Both sides have already agreed to dismantle the missiles by 5/1/95, and the "financial aspects of dismantling and elimination [of the missiles] have been fixed in a separate Russian-Kazakh agreement."

Anatoliy Yurkin, Itar-Tass, 5/17/94, p. 4; in FBIS-SOV-94-095, 5/17/94, p. 4 (11393).

## KAZAKHSTAN WITH SWEDEN

**2/94**

The government of Sweden approves a \$6.1 million aid package for developing nuclear facility control and inspection systems in Kazakhstan, Lithuania, Ukraine, and Russia. The plan calls for Sweden to provide security systems and make recommendations for controlling and monitoring the commercial use of nuclear materials.

*Nuclear News*, 2/94, p. 50 (11214).

## KAZAKHSTAN WITH TURKEY

**2/94**

The Greek periodical *Apoyevmatini* reports that nuclear weapons experts from Kazakhstan are teaching at Istanbul University. The report also states that Turkey is taking steps to obtain nuclear weapons from the former Soviet Union.

Atharasio Dhrugos, *Apoyevmatini* (Athens), 2/21/94, p. 8; in JPRS-TND-94-006, 3/16/94, p. 42 (11159).

## KAZAKHSTAN WITH UNITED STATES

2/13/94

Kazakhstan President Nursultan Nazarbayev presents U.S. President Bill Clinton with Kazakhstan's instrument of accession to the NPT. Nazarbayev states that Kazakhstan will need \$1 billion in compensation for the dismantling of Kazakhstan's nuclear weapons. The U.S. instead offers \$170 million from the Nunn-Lugar program. Half of that amount will be given during 1994 for nuclear emergency response equipment and training, a government-to-government communications link, material control and accounting, export controls, and "strategic offensive arms limitation." The other half will be given in 1995 for defense conversion and other activities.

Elif Kaban, Reuter (Alma-Ata), 2/13/94 (11401). *U.S. Department of State Dispatch*, 2/21/94, p. 97-98 (11401). Ann Devroy, *Washington Post*, 2/15/94 (11401). *Post-Soviet Nuclear Complex*, 2/28/94, p. 3-5 (11401). *Segodnya*, 2/16/94, p. 4 (11153).

3/19/94

A series of meeting between the U.S. Secretary of Defense William Perry and Kazakhstan President Nursultan Nazarbayev results in the signing of a defense conversion agreement, which gives Kazakhstan \$70 million for the dismantlement of nuclear missiles and the "civilian and peaceful" use of the resulting materials.

Vladimir Akimov, Itar-Tass, 3/19/94; in JPRS-TND-94-008, 4/1/94, p. 42 (11392).

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## LATVIA

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### INTERNAL DEVELOPMENTS

1/94

The Latvian Ministry of Home Affairs creates a special working group on the trade of radioactive metals to deal with smuggling and illegal trade.

*Diena* (Riga), 2/26/94, p. 1, 3; in JPRS-TND-94-007, 3/23/94, p. 17 (11372).

## LATVIA WITH FINLAND

2/3/94

Wimco-Erica Finland Ltd. sends a document to the President of Reconstruction and Development Bank, Valdemars Selga, which states that the Reconstruction and Development bank of Latvia has issued a guarantee of \$4.5 billion in order to buy 32.9 kg of osmium-187. In recent years Latvia has become a conduit country between the former Soviet Union and the West in the illegal trade of radioactive materials.

*Diena* (Riga), 2/26/94, pp. 1, 3; in JPRS-TND-94-007, 3/23/94, p. 17 (11372).

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## LITHUANIA

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### INTERNAL DEVELOPMENTS

2/94

Povilas Vaishnis, the head of the Lithuanian State Inspection Committee on Nuclear Power Safety, states that Lithuania cannot provide full control over the transport of nuclear and radioactive materials through its territory because of lack of special equipment and experienced personnel. Lithuanian nuclear experts reject reports that the Ignalina nuclear power plant has become the source of illegal nuclear exports.

Nikolay Lashkevich, *Izvestia*, 2/17/94, p. 3 (10583).

## LITHUANIA WITH BELARUS

3/94

During a conference in Vilnius, the Lithuanian-European Institute proposes to add a third reactor to the Ignalina nuclear power plant in Lithuania. The director of special projects for the Swedish Nuclear Power Inspectorate, Jan Nistad, estimates that the new reactor would cost \$2 billion. The project could not be funded by

Lithuania alone, Nistad said, but a coalition of the Baltic states and Belarus could provide the money.

*Nucleonics Week*, 3/31/94, p. 14 (11406).

## LITHUANIA WITH BELARUS AND SWEDEN

3/25/94

In response to rumors that Sweden's aid to the Ignalina nuclear power plant will be stopped because of problems in securing third-party liability agreements from Belarus, the Swedish Embassy in Vilnius issues a statement that technical aid will continue. Only one of the projects planned by Sweden for the Ignalina plant will affect Belarus, while nineteen others can be implemented without the liability agreements. The Swedish Environment & Natural Resources Department has requested approximately \$7 million for nuclear assistance projects in the Baltics, most of which would go to the Ignalina plant.

Radio Vilnius Network (Vilnius), 3/25/94; in FBIS-SOV-94-059, 3/28/94, p. 73 (11404). Ariane Sains, *Nucleonics Week*, 2/3/94, p. 12 (11404).

## LITHUANIA WITH FRANCE

4/94

A French delegation of nuclear energy experts, visiting Lithuania to discuss safety at the Ignalina nuclear power plant, says that French companies are ready to participate in the plant's modernization. Vyatautus Bieliauskas, the head of the nuclear energy division of the Lithuanian Energy Ministry, says that the EBRD has earmarked 33 million ECU for upgrading safety at Ignalina.

BNS (Tallinn), 5/2/94; in FBIS-SOV-94-085, 5/3/94, p. 44 (11228).

## LITHUANIA WITH GERMANY

2/94

The German magazine *Der Spiegel* reports that nuclear material, including enriched uranium, is being smuggled to the West from Eastern Europe; the report cites Lithuania as the place where most deals seem to be made. The report says that the smuggled

nuclear material is arriving through German middlemen.

*The Times*, 2/8/94; in *International Security Digest*, 2/94 (11223).

**5/94**

Per a 1993 agreement between the Lithuanian Ministry of Energy and Germany's GNB on the supply of German "Castor" dry storage containers, GNB starts adjusting the design of the containers and analyzing the safety of the project. The German containers will be used to store the spent fuel from Lithuania's Ignalina reactor.

*World News*, 5/94, p. 3 (11330).

## LITHUANIA WITH GERMANY AND RUSSIA

**2/94**

German authorities claim that a plane which crashed into Lake Boden may have been carrying at least 70 kg of radioactive cesium-137 on board. The disappearance of the material, and of the German and Czech passengers on board, has led them to believe the crash was a cover-up for the shipment. The smugglers are believed to be members of the "Russian Nuclear Mafia." German intelligence bureaus issue a report on the status of radioactive material smuggling through Germany, citing Lithuania as a possible conduit for nuclear materials from Russia and the former Soviet states into Germany.

*Der Spiegel*, 2/9/94, p. 76-79 (11322).

## LITHUANIA WITH SWEDEN

**12/93**

Lithuania has been designing a means of storage for its nuclear fuel with the assistance of Swedish Nuclear Fuel and Waste management Co. (SKB). SKB has designed a "dry interim storage" system for the RBMK reactors at the Ignalina nuclear power plant.

*Elta News Bulletin* (Vilnius), 12/20/93; in JPRS-TND-94-002, 1/18/94, p. 38 (10741).

**2/94**

The government of Sweden approves a \$6.1 million aid package for developing nuclear

facility control and inspection systems in Kazakhstan, Lithuania, Ukraine, and Russia. The plan calls for Sweden to provide security systems and make recommendations for controlling and monitoring the commercial use of nuclear materials.

*Nuclear News*, 2/94, p. 50 (11214).

**3/94**

An independent group of experts from Sweden and Lithuania begin an investigation of "three previously-identified safety-related problems" existing at the Ignalina nuclear power plant.

Eugenijus Usupras, ENS NucNet, 3/21/94 (11399).

## LITHUANIA WITH UNITED STATES

**6/94**

The U.S. software firm announces that it will donate a software package to the Ignalina nuclear power plant in Lithuania in order to analyze the containment structures of the plant's two RBMK reactors.

PRNewswire, 6/24/94 (11390).

# RUSSIA

## INTERNAL DEVELOPMENTS

**1994**

Channel 4 of British Television airs a documentary concerning a new top-secret weapon allegedly created in Russia. Rumors about this weapon have been linked with the substance known as "red mercury." According to this documentary, "red mercury" is not just a myth, and is actually a major component in a so-called "clean thermonuclear bomb" which has reportedly been made only in Russia.

Reuter, 4/12/94 (11192). JPRS-TND, 5/5/94, p. 30 (11192). *Itar-Tass* (Moscow), 4/13/94; in JPRS-TND-94-010, 5/5/94, p. 31 (11192).

**1/94**

Viktor Mikhailov, the Russian Minister of Atomic Energy, sends a letter to Viktor

Yerin, the Minister of Internal Affairs, in which Mikhailov denies "rumors" of any smuggling of Russian nuclear warheads and materials. Mikhailov declares that there were no cases of smuggling from the Minatom sites, and that anyone claiming thefts should be disciplined by the authorities for providing "false and unsupported" information to the mass media.

*Rossiiskaya Gazeta*, 1/25/94, p. 1 (11310).

**1/18/94**

Combined Nuclear Research Institute (CNRI) director Vladimir Kadyshevskiy announces that a new cyclotron and a new superconductivity-generated nuclear accelerator are in operation at the CNRI, located in Dubna, Russia.

Yevgeniy Molchanov, Itar-Tass World Service (Moscow), 1/18/94; in JPRS-TND-94-004, 2/11/94, p. 20 (11224).

**2/94**

Dr. Oleg Bukharin of Princeton University reports that the transportation of nuclear warheads poses a great security and safety risk. Bukharin, however, expresses optimism that controls are stringent enough to prevent theft during the decommissioning process. Warhead disassembly is conducted at four plants in Central Russia and the Urals, where the rate of decommissioning has risen to about 2,000 warheads per year since the announcement of a major dismantlement program in 1986.

Roger Highfield, *Daily Telegraph*, 2/22/94 (11338).

**2/94**

Staff members of Russia's Kaluga Internal Affairs organized crime administration discover a container of U-235 in the possession of the vice president of a commercial firm in Obninsk. After further investigation, officials discover a cache of uranium, 30 times larger, in the possession of the Obninsk man's brother, in Elektrostal.

Igor Shedvigorskiy, *Pravda* (Moscow), 2/9/94, p. 1 (11203).

**2/4/94**

Russian journalist A. Parfenenkov reports that due to the lack of demand for weapons grade plutonium, work is underway at the Krasnoyarsk-26 nuclear power plant to alter the quality of the weapons-grade pluto-

mium produced there. The altered plutonium will be used as fuel for the plant, which has been in operation for 30 years.

Ostankino Television First Channel Network (Moscow), 2/4/94; in JPRS-TND-94-005, 2/25/94, p. 28 (11217).

### 2/9/94

Russian officials state that the number of attempts to smuggle nuclear materials from nuclear plants is rapidly increasing. In 1993 there were 11 attempts to smuggle uranium, 900 attempts to illegally penetrate nuclear facilities, and 700 attempts to obtain secret documentation from nuclear plants. Most of these attempts were made by the employees of the plants.

*Daily Telegraph*, 2/10/94 (11167).

### 3/94

Alexander Bolsunovsky, a nuclear expert at the Monterey Institute of International Studies, states that he believes Russia could have a total reserve of 140 tons of plutonium. This is a large increase over past estimates, which ranged from 100 tons to 115 tons, and the figure is 50% higher than the figure for plutonium reserves in the U.S. Bolsunovsky notes that if the Tomsk-7 and Krasnoyarsk-26 reactors continue operation until at least the year 2000, Russia's plutonium reserves will be much higher than those of the U.S.

Vladimir Orlov, *Moscow News*, 3/31/94, p. 15 (11386).

### 3/94

Vladimir Loborev, the head of Russia's Central Physics and Technical Institute, and Alexander Chernyshov, the deputy head of the All-Russia Research and Development Institute of Experiment Physics, propose the use of peaceful underground nuclear explosions to destroy nuclear waste and chemical weapons. Chernyshov states that Russia's entire stockpile on 40,000 tons of chemical weapons could be destroyed in three explosions, although ten explosions are being planned. The Novaya Zemlya nuclear test site is proposed for the explosions, and the Chetek joint stock company is marketing the idea.

*Foreign Report*, 3/3/94 (11384). *Russia & Republics Nuclear Industry*, 5/25/94 (11384).

### 4/94

It is reported that the Russian nuclear-powered cruiser "Petr Velikiy" currently under construction at St. Petersburg Baltiyskiy Zavod shipyard will be completed in 9/95. Construction on the "Petr Velikiy" began in 1988.

Sergey Dedukh and Vladimir Spirenkov, NTV (Moscow), 4/21/94; in FBIS-SOV-94-092, 5/12/94, p. 32 (11247).

### 4/94

The Russian Ministry of Atomic Energy (RMAE) submits to the 27th Conference of the Japanese Atomic Industrial Forum in Hiroshima, Japan, a report which says the Russian nuclear complex should rely more heavily on nuclear-related exports and should be open to international cooperation. The RMAE says that Russia's participation in the international market of high nuclear-related technologies would draw needed foreign capital and investment.

Andrey Varlamov, Itar-Tass (Moscow), 4/14/94; in JPRS-TND-94-010, 5/5/94, p. 35 (11249).

### 4/94

Russian security forces reportedly seize some 132 pounds of HEU, "enough to make three weapons of Hiroshima size," in the city of Ishevsk.

*New York Times*, 5/16/94, p. A2 (11194). Reuter, 5/15/94 (11194).

### 4/4/94

A report discloses that Sverdlovsk-44 (Novouralsk) now supplies goods for domestic and foreign nuclear power stations, instead of selling defense industry products as it had in the past.

Yan Khutaranskiy, Moscow Mayak Radio Network, 4/4/94; in FBIS-SOV-94-065, 4/5/94, p. 24 (11206).

### 4/24/94

It is reported that as of 4/1/94, Russia's Siberian Chemical Combine had a debt of 22 billion rubles for weapon-grade plutonium.

Radio Rossii Network (Moscow), 4/24/94; in JPRS-TND-94-011, 5/16/94, p. 33 (11336).

### 5/94

An article in *The Atlantic Monthly* reports that the Russian mafia is seeking to gain control over 15,000 tactical nuclear warheads in order to "hijack the state."

*New York Times*, 5/16/94, p. A2 (11194). Reuter, 5/15/94 (11194).

### 5/94

Russian counterintelligence agents in Sverdlovsk Oblast catch two Yekaterinberg dealers with 2 grams of osmium-192, a rare isotope used as a catalyst in nuclear reactors. The buyer was a "company representative", who may have been buying the material for a customer outside Russia.

Vladimir Zaynetdinov, *Komsomolskaya Pravda*, 5/18/94, p. 3 (11321).

### 5/6/94

Russia's State Supervision Agency for Atomic Power Capabilities Far Eastern district reports that eight naval radiation-monitoring control units containing highly radioactive plutonium-239, strontium-90, and "three 90" are stolen from a laboratory in Nakhodka, a maritime fishing port in Russia's Far East.

2x2 Television (Moscow), 5/6/94; in FBIS-SOV-94-089, 5/9/94, p. 33 (11343).

### 5/11/94

It is reported that construction of the "Severodvinsk" nuclear-powered submarine is not on schedule due to the dissatisfaction of shipbuilders with the quality of design documents.

Vladimir Gundarov, *Krasnaya Zvezda* (Moscow), 5/11/94, p. 2 (11245).

### 5/25/94

FBI Director Louis J. Freeh states that there is a significant threat of organized crime groups in Russia obtaining nuclear materials. An investigation is now underway concerning the possible theft of several kilograms of highly-enriched uranium. Freeh proposes cooperative efforts between Russian police and the FBI to create a database and communication system in order to observe, record and report organized crime activity.

*Washington Post*, 5/26/94 (11193). *New York Times*, 5/26/94, p. A11 (11193). *Los Angeles Times*, 5/30/94, p. B6 (11193).

**RUSSIA WITH ARMENIA**

**2/17/94**

Armenian Prime Minister Grant Bagratyan and Russian First Vice-President Oleg Soskovets sign a preliminary agreement on Russian technical aid and expertise for reactor renovations at the Metsamor nuclear power plant.

*Russia & Republics Nuclear Industry*, 5/25/94, p. 18 (11398).

**3/17/94**

A secondary agreement is signed in Moscow between Russian First Deputy Minister Oleg Soskovets and Armenian Prime Minister Grant Bagratyan regarding the renovations and reactivation of the Metsamor nuclear power plant. The agreement will create an intergovernmental committee for the renovation project. Minatom and Gosatomnadzor will represent Russia on the committee, while the Armenian Energy Ministry and the Armenian State Directorate for the Supervision of Nuclear Energy will represent Armenia. Russia will provide nuclear fuel, engineering services, assistance in the development of a nuclear power management structure in Armenia, and technical servicing of the power station. The committee will oversee site investigations, safety renovations, preparation of the reactors to operate at full power generating capacity, technical training and assistance, regulation, and exports of nuclear fuel from Russia to Armenia. Armenia also agrees to waive all export duties for the equipment from Russia, and to provide free travel for 560 Russian experts and their families. Armenia will adopt Russia's regulations on nuclear safety, and guarantee that none of the materials used by or resulting from the plant will be used for the production of nuclear weapons or other military hardware. Armenia will pay for the project, which means part of the project could be financed by a 40 billion ruble credit extended by Russia to Armenia. The Metsamor power plant will be monitored by the IAEA and will be brought on line only after the IAEA's approval.

*Russia & Republics Nuclear Industry*, 5/25/94, p. 18 (11398). Radio First Program Network (Yerevan), 3/17/94; in FBIS-SOV-94-053, 3/18/94, p. 47 (11398). Sanobar Shermatova, *Moskovskiy Novosti*, 3/27-4/3/94, p. A10 (11339).

**RUSSIA WITH BELARUS**

**5/10/94**

The Ministry of Energy in Belarus and the Smolensk Electric Power Station in Russia sign a five-year nuclear technology and expertise exchange agreement.

Viktor Artemenko, *Pravda* (Moscow), 5/11/94, p. 1 (11328).

**5/20/94**

Belarus makes its first shipment of strategic nuclear missiles to Russia under the START-I accord. Belarus is scheduled to transfer half of its 72 SS-25 missiles during 1994, and the other half during 1995.

Reuter (Minsk), 5/20/94 (11235).

**RUSSIA WITH CANADA**

**3/94**

A joint-venture between Russia's Institute of Physics and Power Engineering (IPPE) and Rockford Technology of Canada is expected to apply for a US \$45-50 million grant to the EBRD to finance an International Centre for Nuclear Safety at Obninsk, Russia. The purpose of the Centre is to train nuclear power plant operators and workers from all of the former Soviet Union and countries with Soviet-built reactors and assemblies.

*Atom*, 3/94-4/94, p. 433 (11332).

**RUSSIA WITH CANADA AND UNITED STATES**

**4/94**

According to Canadian Trade Minister Roy MacLaren, the government of Canada officially challenges a deal, made on 3/21/94 between the U.S. and Russia to trade equal amounts of uranium to each other over a period of ten years, which may shut other players out of the uranium markets of both countries. Canada currently holds a 24% share of the U.S. uranium market, but the current low price of Russian uranium and the allotted share of the market under the new agreement, the country fears that it will lose its position with U.S. buyers. Russian

HEU is currently priced at \$7 per pound, as opposed to \$10 worldwide.

Rosanna Tamburri, *Wall Street Journal*, 4/11/94 (11397).

**RUSSIA WITH ESTONIA**

**3/15/94**

Estonian Environment Minister Andres Tarand announces that Russia will begin removing nuclear fuel on 4/6/94 from the two reactors located at Paldiski, Estonia. The Estonian government names its Rescue Department, the Environment Ministry, the Estonian Railways, and the Economics Ministry as those agencies responsible for safety during the removal operation.

BNS (Tallinn), 3/15/94; in FBIS-SOV-94-051, 3/16/94, p. 55 (11361).

**3/22/94**

The Estonian Cabinet permits a group of Russia military advisors to enter Estonia in order to participate in the dismantling of two nuclear reactors at the Paldiski naval base. The Russian troops at Paldiski are expected to leave Estonia by 8/31/95, after which the dismantling process is expected to be completed.

BNS (Tallinn), 3/23/94; in FBIS-SOV-94-056, 3/23/94, p. 52 (11318). *Foreign Report*, 3/31/94 (11318).

**4/94**

General Director of the Estonian Police Yuriy Pikul accuses unit commanders and senior officers of Russia's Northern Group of Forces stationed in Estonia of selling radioactive materials to the West, citing the sale of "at least five highly radioactive articles made of metal." Pikul says several radioactive turbine sections of two air-cushion vessels, whose metal was scrapped and sold to Finland by Tallinn commanders, has disappeared without a trace.

Russian Television and Dubl Networks (Moscow), 4/3/94; in FBIS-SOV-94-064, 4/4/94, p. 69 (11248).

**4/8/94**

Estonia puts forward a new timetable for the removal of nuclear fuel from the Paldiski naval base, stating 6/94 as the final date for the removal of fuel. Dismantlement of the

reactors as well as removal of radwaste are to be done shortly after the 6/94 deadline. Russia has yet to comment on the proposal.

BNS (Tallinn), 4/8/94; in FBIS-SOV-94-070, 4/12/94, p. 65 (11316).

#### 4/14/94

Special representative of the Estonian Government in Paldiski Juri Tikk says that Russia's removal of nuclear fuel rods from its reactors at the Paldiski naval base has been postponed until the Russian group responsible for the dismantlement arrives in Paldiski, on April 22 or 23, at which time a date will be set to begin work. Russia and Estonia have already agreed on the technical issues involved in dismantling the reactors. The secretary of the Estonian delegation for talks with Russia, Ago Tiiman, says that the rods must be out of Estonia by 6/30/94 and that reactor dismantlement and waste removal should occur as soon as possible. If Russia agrees with the Estonian plan, the entire process of dismantling should take about three years.

BNS (Tallinn), 4/14/94; in FBIS-SOV-94-073, 4/15/94, p. 69 (11208).

#### 4/24/94

Juri Tikk, special government representative in Paldiski, Estonia, announces that the dismantling of the two nuclear reactors at Paldiski and the removal of nuclear fuel from the facility by Russia may begin in early 5/94. Russia has not specified a date for the start of the operation and wishes to first conclude a single agreement for the dismantling and the removal of fuel, whereas Estonia wants two separate agreements. The Estonian government has allocated 1.4 million kroons to cover the costs of the dismantling operation. A large portion of this funding comes from foreign aid specifically earmarked for this purpose.

BNS (Tallinn), 4/22/94; in FBIS-SOV-94-097, 4/25/94, p. 98 (11347). BNS (Tallinn), 5/12/94; in FBIS-SOV-94-093, 5/13/94, p. 66 (11347).

#### 4/26/94

Estonia announces the formation of a national commission to supervise Russia's removal of two nuclear reactors at the Paldiski naval base.

Radio Tallinn Network, 4/26/94; in FBIS-SOV-94-082, 4/28/94, p. 85 (11319).

### RUSSIA WITH EUROPEAN COMMISSION

#### 3/94

The E.C. awards a contract to Electricite de France's Centre Lyonnaise d'Ingenierie for detailed conceptual engineering and advanced studies of a new reactor protection system for Russia's Kola-3 and Kola-4, VVER-440 Model 213 units. The contract is considered "on-site assistance" in the E.C.'s Tacis program.

*Nucleonics Week*, 3/24/94, p. 16 (11237).

### RUSSIA WITH FINLAND

#### 2/94

Representatives from the Finnish Center for Radiation and Nuclear Safety (STUK) return to Finland from Chelyabinsk, Russia, where they visited the Mayak reprocessing plant. The experts described the facilities at Mayak as "well-managed and well-monitored." There is some debate about whether Finland's Imatran Voima Oy should continue shipments of spent fuel to Mayak for reprocessing. Twenty-four tons of spent fuel went from Finland to Russia in a recent shipment, according to Greenpeace sources. According to Yuriy Vishnevskiy, chairman of the Russian Federation Federal Inspectorate for Nuclear and Radiation Safety, Russia is "obliged to take spent nuclear fuel from the Finnish nuclear power station (not waste) until 5/14/99."

Imatran Voima Oy (Helsinki); in *ENS NucNet*, 2/12/94 (11403). *ENS NucNet*, 4/19/94 (11403). *OS Novosti*, 4/21/94; in *Russia & CIS Today*, 4/22/94, p. 8 (11403). Mikhail Lashch, *Kommersant-Daily* (Moscow), 4/27/94, p. 14; in FBIS-SOV-94-083, 4/29/94, p. 17 (11403). Vladimir Ivanidze, *Izvestiya* (Moscow), 5/5/94, p. 2 (11403). Reuter (Helsinki), 2/19/94; in Executive News Service, 2/19/94 (11403).

#### 3/94

Finland ships a simulator to the Russian nuclear power station on the Kola peninsula to help upgrade the training of plant operators. The simulator will be in operation in 9/94.

*ENS Nucleus*, 3/94 (11170). *Finnish Council & Imatran Voima Oy*; in *ENS*, 2/8/94 (11170).

#### 5/23/94

The Finnish government plans to seek the approval of Finland's legislature to prohibit the shipment of spent fuel from the two 445 VVERs in Loviisa, Finland to Russia's Mayak reprocessing complex at Chelyabinsk-65. Although Imatran Voima Oy (IVO) has a contract in perpetuity, it comes up for review in 1996-97. IVO's vice president for heat and power Anders Palmgren predicted that the proposal to prohibit further used nuclear fuel shipments to Russia would be approved, and said that a final repository for the fuel could cost between \$190 million and \$381 million. In addition, if IVO cancels the contract, it will probably have to provide Russia with some compensation.

Ariane Sains, *NuclearFuel*, 5/23/94, p. 5 (11212).

### RUSSIA WITH FINLAND AND ISRAEL

#### 2/18/94

According to the Egyptian Nuclear Energy Agency, the Israeli Atomic Energy Organization and Finnish officials are jointly examining a location in the Negev desert, near Egypt's al-'Awja' area, for a 400 MW Russian nuclear plant. The Egyptian officials say that Finland purchased several nuclear reactors from Russia and had agreed to provide Israel with one of the reactors after it had been updated and modified with Western technology.

*Al-Safir* (Beirut), 2/18/94, p. 10; in JPRS-TND-94-006, 3/16/94, p. 56 (10983).

### RUSSIA WITH FRANCE

#### 6/21/93-6/25/93

Russia and France jointly conduct a simulation of a large-scale nuclear disaster similar to the 1986 Chernobyl accident. Russia and France have decided to repeat the simulation exercise during the summer of 1995 in Chelyabinsk.

*Les Echos* (Paris), 5/25/94, p. 8; in JPRS-TEN-94-015, 6/9/94, pp. 45-46 (11345).

**RUSSIA WITH GERMANY**

**10/93**

The first portion of slightly contaminated uranium, waste from fuel production at the Siemens plant, was shipped for reprocessing and disposal to a Russian facility in Tomsk, according to Rainer Jend, a spokesman for Siemens/Hanau of Germany. The shipment was made under a 7/93 contract between Siemens AG and the Russian Ministry of Atomic Energy covering the export of 140 tons of "slightly impure residue" from Germany to Russia. Russia will send 70 tons of uranium hexafluoride for "manufacture of new fuel elements" to Germany.

*Nuclear News*, 2/94, p. 63 (11168); Joachim Wille, *Frankfurter Rundschau*, 12/24/93, p. 1; in JPRS-TND-93-003, 1/31/94, p. 37 (10722). *Nuclear News*, 2/94, p. 63 (11168).

**1/18/94**

It is reported that an agreement between Russia's Combined Nuclear Research Institute (CNRI) and Germany's Federal Ministry of Research permits German physicists to utilize CNRI facilities until the end of 1996.

Yevgeniy Molchanov, Itar-Tass World Service (Moscow), 1/18/94; in JPRS-TND-94-004, 2/11/94, p. 20 (11224).

**4/94**

Germany's Federal Office for Criminal Investigations reports a "marked increase" in illegal trafficking in radioactive materials for 1993. According to information received by *Die Welt*, 40 kg of uranium-238 were recently offered for sale on the German black market. The uranium had been brought to the West from Siberia by military transport aircraft.

Peter Scherer, *Die Welt*, 4/20/94, p. 2; in FBIS-WEU-94-079, 4/25/94, p. 19 (11191).

**RUSSIA WITH GERMANY AND LITHUANIA**

**2/94**

German authorities claim that a plane which crashed into Lake Boden may have been carrying at least 70 kg of radioactive cesium-137 on board. The disappearance of the material, and of the German and Czech passengers on board, has led them to be-

lieve the crash was a cover-up for the shipment. The smugglers are believed to be members of the "Russian Nuclear Mafia." German intelligence bureaus issue a report on the status of radioactive material smuggling through Germany, citing Lithuania as a possible conduit for nuclear materials from Russia and the former Soviet states into Germany.

*Der Spiegel*, 2/9/94, p. 76-79 (11322).

**RUSSIA WITH HUNGARY**

**3/28/94**

It is reported that officials at Hungary's Paks Nuclear Power Station recently stated that no more fuel will be sent to Russia for reprocessing or storage due to Russia's environmental law prohibiting the import of foreign nuclear waste into Russia.

*NuclearFuel*, 3/28/94, p. 16 (11199).

**3/30/94**

Vitaly Mikhailov, the Russian Minister for Nuclear Power Engineering, signs an agreement in Budapest for Russia to assume the responsibilities of the former Soviet Union by guaranteeing to continue supplying nuclear fuel to Hungary, and to accept Hungary's spent fuel for reprocessing and storage within Russia. In the 1994 document, Russia agrees to continue the protocol set up by the Soviet Union in 1966; as this is an "existing law," the new agreement supposedly does not violate a 1991 Russian law on environmental protection. According to a radio report from Ekho Moskvy on 4/2/94, Russia will be paid \$40 million for importing and processing the radwaste.

*Rossiyskiye Vesti*, 4/14/94, p. 2 (11388). Yevgeniya Novikova, Radiostaniya Ekho Moskvy (Moscow), 4/2/94; in FBIS-SOV-94-064, 4/4/94, p. 15 (11388).

**4/7/94**

Georgiy Kaurov, head of Minatom Information and Public Relations Department, states that Russia has signed an agreement with Hungary to build a nuclear power plant. According to the agreement, Russia will provide Hungary with nuclear fuel and every five years will take back the spent fuel.

Marina Barinova, Itar-Tass (Moscow), 4/7/94; in FBIS-SOV-94-068, 4/8/94, p. 13 (11377).

**RUSSIA WITH INDIA**

**3/29/94**

Managing director of India's Nuclear Power Corporation (NPC) S.K. Chatterjee says that India is again considering a plan to construct a nuclear power plant consisting of two Russian-supplied VVER-1000 units at Koodankulam in Tamil Nadu. In 11/88, the USSR had signed a contract to supply the units to India through the Soviet vendor Atomenergoexport with funding from the Soviet government, but the subsequent dissolution of the USSR effectively rendered the contract null and void. After the final meeting with Russia, scheduled for 6/94, India will decide whether to import the Russian reactors or to install indigenously-produced PHWRs at the site.

*Nuclear Engineering International*, 5/94, pp. 8-9 (11119).

**RUSSIA WITH IRAN**

**2/94**

According to a U.S. Department of Defense official, Iran is currently negotiating with China and Russia for the purchase of commercial nuclear reactors that could be used for military purposes.

Philip Finnegan and Theresa Hitchens, *Defense News*, 2/28/94-3/6/94, p. 6 (11012). Alan Elsner, Reuter, 2/3/94; in Executive News Service, 2/3/94 (11013).

**2/2/94**

A senior Clinton administration official says that Iran's efforts to obtain nuclear technology and materials from the former Soviet Union have been unsuccessful to date.

Alan Elsner, Reuter, 2/3/94; in Executive News Service, 2/3/94 (11013).

**3/21/94**

Russian experts start work on the first unit of Iran's 1000 MW plant, according to a source at the plant. Iran signed an agreement with the Russian experts several months ago. The Bushehr Power Plant is scheduled to be finished in four years. According to the report, 85% of the construction and 65% of mechanical and electrical work at Bushehr is complete.

*Jomhuri-Yeaslami* (Tehran), 4/13/94, p. 4; in FBIS-NES-94-079, 4/25/94, p. 82 (11003). Mena (Cairo), 4/13/94; in JPRS-TND-94-010, 5/5/94, p. 49 (11152).

## RUSSIA WITH IRAQ, IAEA, UNITED NATIONS, AND UNITED STATES

2/12/94

The IAEA, with the help of the UN Special Commission on Iraq, removes the last of the two consignments of HEU in the form of irradiated nuclear fuel from Iraq. The first shipment of HEU was removed from Iraq on 12/4/93. Both shipments of irradiated fuel were removed from Iraq under contract with the Russian Ministry of Atomic Energy and a U.S. subcontractor which provided crash-proof casks. The irradiated fuel was removed from the Iraqi Nuclear Centre at Tuwaitha and transported by road to Habbaniya airfield west of Baghdad. From the Habbaniya airfield the nuclear material was flown to Yekatinburg, Russia where it will be transported to a reprocessing facility in Chelyabinsk, Russia.

*IAEA Press Release* (PR 94/3), 2/15/94 (11002). *Reuter*, 2/15/94; in *Executive News Service*, 2/15/94 (11142). *Nuclear News*, 3/94, p. 87 (11142).

## RUSSIA WITH ISRAEL

1/94

Israel Energy Minister Moshe Shahal states in an interview that Israel is interested in the possibility of research and development in nuclear technology with the U.S. and Russia. Shahal also says that a meeting had been held by former Israel Energy Minister Yuval Ne'eman and Professor Amon Rubenstein to discuss the possibility of a joint Russian-Israeli venture for a nuclear power plant.

*Qol Yisra'el* (Jerusalem), 1/20/94; in JPRS-TND-94-005, 2/25/94, p. 54 (11009).

## RUSSIA WITH ISRAEL AND UNITED STATES

1/94

After returning from a visit to Russia, Israeli Energy Minister Moshe Shahal says

that he has rejected an offer from Russia to sell nuclear power plants to Israel. Shahal explains that Israel is more interested in cooperating on future nuclear technologies, possibly with Russia and the U.S., than in buying existing technology, even though former Israeli Energy Minister Yuval Ne'eman and Professor Amnon Rubinstein had in the past mentioned the possibility of a joint Russian-Israeli venture for a nuclear power plant. Russian officials also offer their help in developing new nuclear power plants in conjunction with the U.S., but Shahal declines for "technical and political reasons."

*Qol Yisra'el* (Jerusalem), 1/20/94; in JPRS-TND-94-005, 2/25/94, p. 54 (11009). *Nucleonics Week*, 2/3/94, p. 15 (11065).

## RUSSIA WITH JAPAN

1/94

As part of a 1993 Russian-Japanese Inter-governmental Agreement on Cooperation on Safety in the Nuclear Power Industry, Japanese and Russian specialists begin installing a Japanese acoustic device at the Leningrad nuclear power station. The device, valued at more than U.S. \$900,000, will detect radiation leaks from the Leningrad nuclear power station's RBMK-1000 reactors.

*Izvestiya* (Moscow), 1/26/94, First Edition, p. 2; in JPRS-TEN-94-003, 2/7/94, p. 43 (11216). *Nuclear Europe Worldscan*, 1-2/94, p. 26 (11216).

2/94

Officials in Vladivostok approved the construction of nuclear waste storage tanks, to prevent further dumping of nuclear waste in the Sea of Japan. These tanks will be installed approximately 125 miles to the east of Vladivostok. Japan has agreed to finance the construction by Japanese firms of a nuclear-waste reprocessing plant in the Far East, on the condition that Russia stop ocean dumping.

*Wall Street Journal*, 2/15/94, p. A15 (11063).

3/94

Russia's Maritime Kray Governor Yevgeniy Nozdratenko says that he has secured Russian Foreign Minister Andrey Kozyrev's support for the construction of a reprocess-

ing plant for liquid nuclear waste from Russian nuclear submarines in Maritime Kray. The work would be carried out by the Maritime Kray Administration under Japanese supervision. Another similar reprocessing plant is to be constructed at a Russian Pacific Fleet nuclear waste storage facility.

Russian Television Network (Moscow), 4/19/94; in JPRS-TEN-94-009, 4/7/94, p. 38 (11222).

4/94

Russian and Japanese officials discuss a plan to build a facility in the Russian Far East where low-level waste from Russia's naval nuclear fleet could be treated and stored. Construction of the facility would be financed by US \$78 million committed by Japan at the 1993 G7 economic summit as "denuclearization" aid to Russia.

*Nucleonics Week*, 4/28/94, p. 16 (11221).

4/8/94

Russian Nuclear Energy Minister Mikhailov says that Russia and Japan have reached a decision to cooperate on building a \$600-700 million underground nuclear power plant in the Russian Far East.

*Sankei Shimbun*, 4/9/94 (11161).

4/13/94

The Director of the Nuclear Reactor Department in Russia's Ministry of Atomic Energy says that Russia would like to develop a partnership with Japan for construction of the BN-800 fast breeder reactor. The BN-800 utilizes plutonium from dismantled warheads.

*Nihonkeizai Shimbun*, *Asahi Shimbun*, 4/14/94 (11169).

## RUSSIA WITH JAPAN AND UNITED STATES

5/23/94

The Vice President of Russia's Academy of Science states that Russia and the U.S. firm General Atomic Company are working together to develop a gas reactor utilizing plutonium from dismantled warheads. Russia has also proposed a role for Japan in the project.

*Hikan Koguo Shimbun*, 5/24/94 (11163).

**RUSSIA WITH KAZAKHSTAN**

**2/12/94**

An article in *Izvestiya* states that the storage facilities for nuclear weapons in Kazakhstan have serious and potentially dangerous deficiencies in the areas of safety and security, particularly at the Derzhavinsk site in the Turgai region, and at Zhangiz-Tobe in Semipalatinsk. The article demands a state-to-state agreement between Russia and Kazakhstan for control of base operations and troops in Kazakhstan.

Viktor Litovkin, *Izvestiya* (Moscow), 2/12/94, p. 1 (11387).

**2/13/94**

Tulegen Zhukeyev, a Kazakh state adviser, states that the 2/12/94 *Izvestiya* article exaggerated the dangers of Kazakhstan's storage facilities. Zhukeyev says that the article was intended to impede bilateral negotiations between Russia and Kazakhstan on the subject of nuclear arms, and that it reflects the distress felt by Russia that Kazakhstan has suspended the withdrawal of intercontinental ballistic missiles from its country.

Gennady Kulagin, ITAR-TASS (Moscow), 2/12/94; in JPRS-TND-94-006, 3/16/94, p. 37 (11387).

Richard Balmforth, Executive News Service, 2/15/94 (11387).

**3/28/94**

Kazakhstan President Nursultan Nazarbayev and Russian President Boris Yeltsin sign 23 agreements, including a document of cooperation between Russia and Kazakhstan in the production and sale of uranium, beryllium and other materials.

Reuter (Moscow), 3/28/94; in Executive News Service, 3/20/94 (11196).

**3/30/94**

Kazakhstan President Nursultan Nazarbayev states in a press conference in Moscow that nuclear testing will never be resumed at the Semipalatinsk nuclear testing site. Nazarbayev states that he has considered the Semipalatinsk issue with Russian president Boris Yeltsin and has secured Russia's aid in using the site for "peaceful purposes," possibly as a space training center or a location for nuclear safety systems testing. Russia's willingness to close down its nuclear test-

ing operations at Semipalatinsk were further verified through a 4/28/94 *Vesti* broadcast in Moscow which detailed the plans to decrease and eventually eliminate Russia's servicing personnel at the site. At the time of the broadcast it was stated that only 20% of the initial number of personnel were currently at the site, and that all would be gone by 7/94.

Interfax, 3/30/94; in FBIS-SOV-94-062, 3/31/94, p. 43 (11389). S. Polyayev, *Vesti* (Moscow), 4/28/94; in FBIS-SOV-94-090, 5/10/94, p. 25 (11389).

**4/28/94**

Commander-in-chief of the Strategic Missile Forces in Russia Colonel General Igor Sergeev states that the return of nuclear missiles to Russia from Ukraine, Belarus, and Kazakhstan is going well. Sergeev says that there is no reason to fear that leaks of information regarding the "strategic arms command and control systems" could compromise the security of Russia's nuclear forces. All warheads will be removed from Kazakhstan by 5/94, and all launchers and missiles will be removed by 1997.

Pavel Felgengauer, *Segodnya*, 4/29/94, p. 1; in FBIS-SOV-94-083, 4/29/94, pp. 39-40 (11396).

John Lepingwell, *RFE/RL News Briefs*, 5/13/94, p. 9 (11396).

**5/94**

The All-Union Scientific Research and Planning Institute in Moscow has designed a project for unearthing the unexploded underground nuclear charge at the Semipalatinsk testing site in Kazakhstan. Russia will cover the expenses for the project, which is expected to cost 1 billion rubles.

*Komsomolskaya Pravda* (Moscow), 5/13/94, p. 2 (11150).

**RUSSIA WITH KAZAKHSTAN AND UNITED STATES**

**2/94**

Kazakhstan President Nursultan Nazarbayev, during a visit to the U.S., asks for \$1 billion in compensation for Kazakhstan's share of the nuclear materials which are now in Russia's hands. The U.S. has stated that unless proper compensation agreements are made between Russia and the countries of

Belarus, Kazakhstan, and Ukraine, the U.S. will not execute a \$11.9 million agreement with Russia.

Aleksandr Gerasimov, St. Petersburg Fifth Channel Television Network, 3/20/94 (11395). NTV (Moscow), 4/28/94; in FBIS-SOV-94-083, 4/29/94, p. 60 (11395). John Diamond, *Washington Times*, 3/20/94, p. A6 (11395). *Arms Control Today*, 4/94, p. 28 (11395).

**5/17/94**

Aleksandr Volkov, the first deputy commander-in-chief of the Russian Strategic Missile Forces, states that Kazakhstan apparently wishes U.S. experts to dismantle the nuclear missiles Kazakhstan is returning to Russia, which violates the agreement made between Russia and Kazakhstan on the transfer, dismantling, and elimination of the missiles. Both sides have already agreed to dismantle the missiles by 5/1/95, and the "financial aspects of dismantling and elimination [of the missiles] have been fixed in a separate Russian-Kazakh agreement."

Anatolii Yurkin, Itar-Tass, 5/17/94, p. 4; in FBIS-SOV-94-095, 5/17/94, p. 4 (11393).

**RUSSIA WITH LIBYA**

**Early 1994**

Italian nuclear trafficking expert Romano Dolce says that Libya, Iraq, and Iran are spending large amounts of money to buy the controversial substance called red mercury, a substance thought to be produced by Russia, in order to build nuclear weapons.

*Sunday Times*, 5/22/94 (11164).

**2/94**

Experts from Libya's Tajura nuclear research center visit the Kursk nuclear power plant in Russia, but their suggestion for joint research on a reactor core is strongly rejected by the Kursk nuclear power plant management. Nevertheless, the Russians and Libyans agree on cooperation in various experiments and projects. Sources say the value of the agreements to Kursk is far in excess of \$100,000. Libyan delegates persuade Atomenergoexport and Kursk power plant leaders that Libya will use nuclear power only for peaceful purposes.

*Komsomolskaya Pravda*, 2/12/94, p. 1; in JPRS-TND94-006, 3/16/94, p. 58 (11181).

**RUSSIA WITH MULTI-COUNTRY GROUP**

**2/25/94**

The general manager of Bulgaria's Kozloduy nuclear power plant, Kozma Kuzmanov, states that Gidropress Design Bureau of Russia (with the help of Siemens AG of Germany, Skoda of the Czech Republic, and Westinghouse Electric Corp. of the U.S.) is conducting a study on the condition of metal in two of the plant's reactor vessels. Depending on the results of the project, which costs \$900,600, a decision will be made to either shut the reactors down or reconstruct them.

Reuter, 2/25/94; in Executive News Service, 3/1/94 (11375).

**3/3/94**

An international technology and science center established in Moscow, Russia to decrease the proliferation of nuclear weapons expertise and technology from the former USSR formally begins operations. The center was set up under an agreement between Russia, the U.S., the E.U., and Japan.

Kyodo (Tokyo), 3/3/94; in JPRS-TND-94-007, 3/23/94, p. 30 (11209).

**4/1/94**

An article in *Al-Watan Al-'Arabi* cites a Russian Classified report, prepared by the Russian Counterespionage Service for President Yeltsin, which states that it is virtually impossible to avert smuggling and trafficking of nuclear weapons and to assure security of the strategic installations in the CIS. As a result, in 1993 alone, there were 900 cases of smuggling from nuclear plants and military bases, 700 of which occurred in the second half of 1993. In most cases, Iran, Pakistan, and Iraq are the countries of destination for smuggled items.

*Al-Watan Al-'Arabi* (Paris), 4/1/94, pp. 34-36; in FBIS-SOV-94-065, 4/5/94, p. 4 (11369).

**RUSSIA WITH NORTH KOREA**

**1/94**

The Japanese Weekly *Shukan Bunshin* publishes a story which alleges that Russian scientists have been deeply involved in North

Korea's nuclear program. The story is reportedly based on a Russian classified report, 001 SM-137, dated 10/22/93, which was prepared by the Center for Military-Strategic Analysis under the Russian Ministry of Defense's General Staff on "The Russian Federation's Military Policy in the Asian-Pacific Region Under New Military-Political Conditions." Shukan Bunshin also interviewed an unspecified Russian "leader," who participated in preparing the report. The report and the "leader" attribute the successful progress of North Korea's nuclear and missile program to aid received from Russia and China. With the help of Russian scientists and technologies, North Korea has amassed 10 to 12 kg of U-235 and 20 kg of Pu-239, according to the report. Over the past few years almost 160 Russian nuclear scientists and missile experts have visited North Korea, and currently nine nuclear scientists and seventeen missile specialists are there, the report states. Some of the scientists have become North Korean citizens. Quoting Russian nuclear scientists who have just returned from North Korea, the report states that one or two warheads have been assembled and several more will be completed by the end of 1994. Col. Gen. Mikhail Kolesnikov, Chief of the Russian Ministry of Defense's General Staff, however, said the report was falsified—the document numbers and designators are incorrect, he said, and there is no Center for Military-Strategic Analysis.

*Izvestiya*, 1/27/94, pp. 1, 4 (11335). *Izvestiya*, 1/29/94, p. 3 (11335).

**2/14/94**

Vladimir Kumachev, an adviser to the director of Russia's Institute of National Security and Strategic Research, says that Russia maintains about "15 [nuclear] experts in North Korea" who work solely in the civilian nuclear industry sector, so as "to monitor its nuclear programme." While the Russian specialists "do not have access to all the essential information [on North Korea's nuclear program], they file regular reports on their activities to the IAEA."

AFP (Seoul), 2/14/94; in JPRS-TND-94-006, 3/16/94, pp. 11-12 (14444).

**RUSSIA WITH NORWAY**

**4/28/94**

The Russian Ministry of Ecology announces that Norway and Russia have agreed to build a storage facility for radioactive waste in Russia's Far North. There are also plans to organize an expedition which will examine the areas in the northern seas where radioactive wastes were previously dumped.

*Itar-Tass* (Moscow), 4/28/94; in JPRS-TND-94-011, 5/16/94, p. 51 (11155).

**4/30/94**

Russia's Environment Minister Viktor Danilov-Danilyan denies speculation arising from recent talks between Danilov-Danilyan and his Norwegian counterpart, Thorbjorn Berntsen, that Russia has agreed to store Norwegian radioactive waste in a repository built for the purpose in the "Russian north."

Radio Moscow World Service, 4/30/94; in JPRS-TEN-94-013, 5/16/94, p. 18 (11207).

**RUSSIA WITH PRC**

**3/94**

Russia and China sign a deal to design, construct, and operate a uranium enrichment plant using centrifugal isotope separation in China. The transfer of know-how is covered by the agreement. The Chinese facility will produce fuel for nuclear power plants.

*Ministry of Atomic Energy* (Russia); in *ENS NucNet*, 3/21/94 (11165).

**5/94**

Two Russian VVER-1000s are being assembled to be shipped to Liaoning province, China, according to a statement by Sun Guangdi, chief engineer for nuclear power at the China National Nuclear Corporation. The nuclear power plant is to be built at Wafangdian.

*Nuclear Europe Worldscan*, 5-6/94, p. 25 (11378).

**RUSSIA WITH PHILIPPINES**

**3/93**

Greenpeace nuclear expert Thomas Schultz-

Jagow says that Russia and the Philippines are negotiating a sale of a floating reactor unit. The Philippines cannot yet pay for the reactor due to the lack of "foreign currency." According to Schultz-Jagow, the compact reactors are very unsafe.

*Focus* (Munich), 3/7/93, p. 84; in JPRS-TND-94-007, 3/23/94, p. 12 (11333).

#### RUSSIA WITH SLOVAKIA

4/94

Russia guarantees Slovakia a \$450 million loan for completing work on the Mochovce VVER plant. Russia also says that it might repay part of its debt to Slovakia with parts for the nuclear plants. Russia will continue to export nuclear fuel to Bohunice VVER-440 plant in Slovakia. However, Slovakia's Minister for Economic Affairs, Peter Magvasi, could not persuade Russia to make a commitment to take the spent fuel back.

*Nucleonics Week*, 4/21/94, p. 15 (11160).

#### RUSSIA WITH SOUTH KOREA

9/11/93

*Hanguk Kyongje Sinmun* reports that South Korean firms have concluded numerous R&D contracts with Russia, one of which provides South Korea with technology allowing it to manufacture instruments capable of measuring high pressure.

*Hanguk Kyongje Sinmun*, 9/11/93; in JPRS-TND-94-008, 4/1/94, pp. 18-20 (11264).

1/25/94

A South Korean envoy to Russia reports that Russia could sell enriched uranium to South Korea to repay \$1.47 billion in loans that South Korea made to the former Soviet Union.

*Yonhap* (Seoul), 1/25/94; in JPRS-TND-94-005, 2/25/94, p. 57 (11006).

5/9/94

It is reported that Tenex of Russia and "Kerso" [possibly Korea Electric Power Corporation (KEPCO)] of South Korea have signed a 10 year, \$200 million uranium enrichment agreement.

*Ux Report*, 5/9/94, p. 3; in *Uranium Institute News Briefing* 94/19, 5/4/94-5/10/94, p. 1 (11115).

#### RUSSIA WITH SWEDEN

2/94

The government of Sweden approves a \$6.1 million aid package for developing nuclear facility control and inspection systems in Kazakhstan, Lithuania, Ukraine, and Russia. The plan calls for Sweden to provide security systems and make recommendations for controlling and monitoring the commercial use of nuclear materials.

*Nuclear News*, 2/94, p. 50 (11214).

#### RUSSIA WITH TAIWAN

2/19/94

A six-member group from Taiwan, consisting of Taipower consultant Lin Yin, Chief of Taipower's Nuclear Terminal Operations Division Chein Pei-chen, Head of the National Enterprise Division Huang Jen-chu, an AEC representative, and two professors from AEC's Nuclear Research Institute, arrive in Moscow to discuss the possibility of storing Taiwan's nuclear waste in Russia.

*Nuclear Report From Taiwan*, 1/94-3/94, p. 35 (11374).

5/94

It is reported that Taipower is about to sign a letter of intent obliging Russia to cooperate in the disposal of HLW outside of Taiwan.

BBC Summary of World Broadcasts, 5/23/94; in *Uranium Institute News Briefing*, 5/18-24/94, 94/21, p. 1 (11158).

#### RUSSIA WITH TURKEY

4/6/94

In a meeting with Onur Kumbaracibasi, Turkey's Minister for Construction and Settlements, Russian First Vice-Premier Oleg Soskovets offers to construct a new nuclear power plant in Turkey, stating that Russia's nuclear plants are considerably cheaper than others on the world market.

Oleg Velichko, *Itar-Tass* (Moscow), 4/6/94; in FBIS-SOV-94-066, 4/6/94, p. 13 (11236).

#### RUSSIA WITH UKRAINE

1/94

Gosatomnadzor, the Russian nuclear safety agency, declares that Russia will not send any more nuclear fuel to Ukraine until it accedes to the NPT and accepts formal IAEA safeguards. The Ukrainian government responds by stating that this contradicts the Trilateral Agreement as well as another agreement requiring Russia to supply Ukraine with nuclear fuel.

Ann MacLachlan, *Nucleonics Week*, 2/3/94, p. 1 (11271). Yuriy Aleksandrov, *Nezavisimaya Gazeta* (Moscow), 2/11/94, p. 2; in FBIS-SOV-94-031, 2/15/94, p. 26 (11271). *ENS NucNet*, 2/21/94 (11271).

2/94

Ukrainian and Russian government officials discuss the transportation schedule of nuclear warheads to Russia, and compensation in the form of nuclear fuel.

Grigoriy Nesmyanovich, *Krasnaya Zvezda*, 2/11/94, p. 1 (10672).

2/23/94

In accordance with the 1/94 Trilateral Agreement, the first shipment of Russian nuclear fuel is sent to Ukraine, according to a spokesman for Russia's Ministry of Atomic Power. The shipment of 120 fuel assemblies was sent from the Elektrostal plant near Moscow to Ukraine's Chernobyl nuclear power plant.

*ENS NucNet*, 3/3/94 (11275).

3/94

Volga-Vyatka Internal Affairs Administration staff members seize several containers of radioactive Polonium-210 which reportedly had been transported by passenger train from Arzamas-16, across Nizhniy Novgorod Oblast, to Kiev to be used in X-ray machines.

*Komsomolskaya Pravda* (Moscow), 3/12/94 (11195).

3/6/94

In accordance with the Trilateral Agreement reached in 1/94 between the Ukrainian, Russian, and U.S. presidents, the first shipment of sixty Ukrainian nuclear weapons arrive in Russia for dismantlement. The missiles left Ukraine on 3/5/94, according

to Russian Defense Ministry spokesman Yuri Soldatenko.

Reuters, AP; in *International Herald Tribune*, 3/7/94 (11365). *Washington Times*, 3/6/94, p. 9 (11365).

### 3/14/94

A second shipment of sixty nuclear warheads is sent to Russia, according to Ukrainian officials. Valentyn Lemish, head of the parliamentary defense commission, states that the warheads are from the Khmelnytsky missile base. The first shipment of sixty warheads came from Pervomaysk.

John Diamond, *Washington Times*, 3/22/94, p. A10 (11367). Aleksey Agureyev and Sergey Balykov, Itar-Tass (Moscow), 3/22/94; in FBIS-SOV-94-056, 3/23/94, pp. 27-28 (11367).

### 4/14/94

Grigoriy Karasin, the director of the Russian Foreign Ministry's Press and Information Department, reports that the first shipment of LEU "fuel installations" [fuel assemblies] from Russia arrived at Ukraine's nuclear power station. The LEU is being provided as compensation for Ukrainian nuclear warheads that are being shipped to Russia for dismantling.

Itar-Tass World Service (Moscow), 4/14/94; in FBIS-SOV-94-073, 4/15/94, p. 12 (11210).

### 4/28/94

Commander-in-chief of the Strategic Missile Forces in Russia Colonel General Igor Sergeyev states that the return of nuclear missiles to Russia from Ukraine, Belarus, and Kazakhstan is going well.

Pavel Felgengauer, *Segodnya*, 4/29/94, p. 1; in FBIS-SOV-94-083, 4/29/94, pp. 39-40 (11396). John Lepingwell, *RFE/RL News Briefs*, 5/13/94, p. 9 (11396).

### 5/94

Ukraine's Zaporozhe nuclear power plant receives a one-year supply of nuclear fuel from Russia's Novosibirsk facility.

Volodymyr Dupak, *Holos Ukrayiny* (Kiev), 5/6/94, p. 4; in FBIS-SOV-94-090, 5/10/94, p. 21 (11272).

## RUSSIA WITH UKRAINE AND UNITED STATES

### 3/21/94

U.S. Defense Secretary William Perry signs three agreements whereby the U.S. agrees to give Ukraine an additional \$100 million in aid for nuclear disarmament. One of the three agreements allocates an additional \$50 million (on top of \$135 million agreed on previously) for the dismantlement and shipment to Russia of Ukraine's SS-24 and SS-19 nuclear missiles and for the destruction and cleanup of Ukrainian missile silos. The second agreement allocates \$40 million to assist Ukraine in defense conversion, and the third agreement designates \$10 million for the development of a strong accountancy and control system for Ukrainian nuclear material.

Charles Aldinger, Reuter, 3/21/94; in Executive News Service, 3/21/94 (11368). Ivan Andreev, *Segodnya*, 3/23/94, p. 4 (10589).

### 4/19/94

Ukrainian Foreign Minister Anatoly Zlenko states that Ukraine needs over \$2 billion to dismantle its nuclear weapons, and adds that the \$352 million in U.S. disarmament aid received thus far is just "a beginning."

Rostislav Khotin, Reuter, 4/19/94; in Executive News Service, 4/21/94 (11276). Interfax, 5/30/94; in FBIS-SOV-94-104, 5/31/94, p. 55 (11276).

## RUSSIA WITH UNITED KINGDOM

### 4/94

It is reported that the first deliveries of 250 nuclear-weapon containers and 20 vehicles from the U.K. to Russia are expected to be made in the near future. The cost for this aid is estimated at 35 million pounds.

*Trust and Verify*, No. 46, 4/94 (11244).

### 5/94

Amersham officials Dewi Lewis and Bruce Beharrell state that their UK based firm imports seven radioisotopes from Russia's Mayak Production Association—americium-241, caesium-137, carbon-14, cobalt-60, iridium-192, krypton-85, and tritium. Revis Services, a joint-venture between Amersham and Mayak, handles the radioisotope purchases. According to Lewis,

there are between fifty and sixty marketable isotopes at Mayak.

*Russia & Republics Nuclear Industry*, 5/25/94 (11373).

## RUSSIA WITH UNITED STATES

### 1/94

Viktor Mikhailov proposes that the U.S. firm Babcock & Wilcox, as well as a number of other U.S. companies, be included in a joint venture partnership with Russian companies to blend down and sell Russian and U.S. HEU.

Michael Knapik and Ann MaClachlan, *NuclearFuel*, 2/28/94, p. 15 (11007).

### 2/94

Russia is seeking approval and possible financial assistance from the US government for its "Arctic Bridge" plan, which will convert atomic submarines to use as underwater oil tankers. A prototype sub-tanker, costing 2.5 million in 1992 rubles, will be refitted by 1997.

Martin Resnik, *We*, 2/7/94-2/20/94, p. A1 (11067).

### 2/94

Russia's International Science Center and the Los Alamos and Azarman-16 research center in the U.S., announce that they intend to collaborate on a civilian research project to employ 1,000 members of the "All-Russian Scientific Research Institute of Experimental Physics." This program is designed to prevent them from drifting away to "possible proliferation risk areas."

*Post-Soviet Nuclear Complex Monitor*, 2/9/94, p. 10; in *Uranium Institute News Briefing*, 2/9/94-2/15/94, p. 2 (10977). *Post-Soviet Nuclear Complex Monitor*, 2/28/94, p. 6 (11241).

### 2/94

Several members of a U.S. business consortium, which is seeking to modify two Washington-based mothballed nuclear reactors to burn surplus plutonium for a profit, visit Russia to discuss similar plutonium disposal arrangements in Russian PWRs that could be converted to run on plutonium fuel. Construction of a fuel reprocessing plant in Tomsk, Russia is being discussed.

*The Economist*, 2/12/94 (11341).

**3/94**

William Timbers, Chief Executive of the U.S. Enrichment Corporation, states that there will be no transfers of HEU from Russia to the U.S. under a 1/94 contract until a transparency agreement is in place. The transparency agreement will establish safeguards to assure that the HEU is from Russian warheads and that it is properly used in the U.S.

*NuclearFuel*, 3/14/94, p. 6 (11200).

**3/94**

U.S. Defense Secretary William J. Perry signs an agreement with Russia to provide assistance for arms reduction and disarmament of the more dangerous 10-warhead missiles.

*International Herald Tribune*, 4/24/94 (11250).

**3/9/94**

The Pentagon announces that it has created a possible method of nuclear weapons disarmament verification which could be utilized by both the U.S. and Russia without fear of revealing weapons secrets to each other. At present, the Russian government has claimed that it is destroying warheads at a rate of 2,000 per year, but this cannot be verified, as U.S. experts are not allowed to observe the process.

Michael R. Gordon, *New York Times*, 3/10/94 (11402).

**3/12/94**

The Deputy Minister of Russia's Ministry of Atomic Energy, Nikolai Yegorov, and the acting assistant secretary for import administration representing the U.S. Department of Commerce, Joseph Spetrini, sign an amendment to the bilateral antidumping suspension agreement. The amendment establishes a fifty-fifty match of Russian and U.S. uranium in the joint sales to potential consumers. The amendment also provides for 1) the U.S. importation of 6.6 million pounds of Russian U-308 and two million pounds of SWU during the 1994-95 period; 2) a total of 43 million pounds of Russian uranium to be imported through 2003; 3) a 1996 import limit of 1.9 million pounds of uranium that will increase to 4.3 million pounds in 2003; 4) individual companies receiving no more than twenty percent of

the uranium imported by the U.S.; and 5) the annual sale of 500 tons of Russian natural uranium by Russia to the U.S. at no less than \$13 per pound.

*NuclearFuel*, 3/15/94, pp. 1, 7 (11376). *Rossiyskaya Gazeta*, 3/23/94, p. 4 (11376). *Uranium Institute, News Briefing*, 3/14/94, p. 1 (11376). Pamela Newman, *Energy Daily*, 3/1/94 (11376). Russian Television Network, 4/4/94; in FBIS-SOV-94-065, 4/5/94, p. 5 (11376).

**3/14/94**

U.S. and Russian representatives meet at the Department of Energy to discuss how the U.S. can aid Russia in ending its production of uranium-239. The U.S. has already agreed to help pay for the construction of a storage facility for weapons-grade materials in Russia. To date, the U.S. has allocated \$75 million for equipment for the storage facility project. Russia wants the U.S. to allocate an additional \$75 million for the actual construction of the facility. In return, Russia proposes that it would speed up the decision to halt production of weapons-grade plutonium.

Itar-Tass (Moscow), 3/15/94; in FBIS-SOV-94-051, 3/16/94, pp. 6-7 (11383).

**3/16/94**

U.S. DOE Secretary Hazel O'Leary and Russia's Minister of Atomic Energy Viktor Mikhailov report that three days of negotiations in Washington, D.C. have resulted in an agreement that calls for one round of inspections of each country's plutonium storage facilities. The inspections are to be conducted by the end of 1994. The agreement also covers the establishment of a joint feasibility study on the replacement of Russian plutonium-producing reactors with alternative energy sources. The Russian plants under study are two dual-purpose units at the Tomsk-7 nuclear plant and another unit in Krasnoyarsk, which provide energy for surrounding towns. Russia must prove its intentions to halt plutonium production in order to be eligible for up to US \$75 million to construct a plutonium storage facility under the terms of an amendment to the 1994 Defense Authorization Act.

Dunbar Lockwood, *Arms Control Today*, 4/94, p. 22 (11340). *Jane's Defence Weekly*, 3/26/94, p. 6 (11340). Thomas W. Lippman, *Washington Post*, 3/17/94 (11340). *Trust and Verify*, 4/94, p. 1 (11239).

**3/18/94**

The U.S. Department of Commerce and Russia's Minatom sign a protocol to guarantee the proper handling of HEU from dismantled Soviet weapons, which will be used in a diluted form as a fuel for U.S. commercial reactors.

*NuclearFuel*, 3/28/94, p. 6 (11371).

**3/22/94**

Russia's Itar-Tass news agency reports that Russia is planning to stop the production of weapon-grade plutonium this year due to the stockpiling of plutonium from the dismantled nuclear arsenals of Russia and the U.S. Itar-Tass quotes Russia's Atomic Energy Ministry business manager Valery Bogdan as saying that a Russian-U.S. agreement on ceasing weapon-grade plutonium production is due to be signed in the summer of 1994 and that Russia's production could stop by late 1994. Russia's three remaining weapon-grade plutonium reactors, one at Krasnoyarsk-26 and two at Tomsk-7, supply energy to nearby towns and formerly secret army centers.

Reuter, 3/22/94 (11215).

**3/22/94**

It is reported that a planned agreement between the U.S. and Russia should result in Russia ending its production of weapons-grade plutonium by the end of 1994. This is the outcome of a protocol which was signed on 3/16/94 between Russian Minister of Energy Viktor Mikhailov and U.S. Energy Secretary Hazel O'Leary in Washington, D.C. There are currently three operating reactors in Russia that produce weapons-grade plutonium, two located in Tomsk and one in Krasnoyarsk. The reactors are dual-use and supply energy to their respective regions. Minatom, however, plans to phase out three reactors at the end of their service lives, which will occur between 1997 and 1998.

Itar-Tass (Moscow), 3/22/94; JPRS-TND-94-008, 4/1/94, p. 40 (11362).

**5/94**

The U.S. Los Alamos National Laboratory in New Mexico signs an agreement with the All-Russian Science Research Institute of Experimental Physics, which provides for

twenty-four joint research projects at Arzamas-16, Russia, in areas such as non-proliferation and nuclear reactor safety. During the next two years the Los Alamos Laboratory will spend \$2 million annually for the project which promises to secure jobs for one thousand Russian scientists, thereby neutralizing the proliferation risk of the brain drain.

*Russia & Republics Nuclear Industry*, 5/25/94, p. 15 (11370).

### 5/5/94

The Clinton administration proposes an extensive inventory program for fissile materials in Russia and the U.S. Two groups of representatives from the White House Office of Science and Technology Policy and the State Department are planning to travel to Moscow to discuss this project with the Russian government. One of the groups will be concerned with the long-term disposal of plutonium, and intends to ask the Russians to agree to outside monitoring of nuclear plants and to provide information on other areas of the nuclear complex. The teams also intend to ask Russia to stop generation of plutonium for both military or civilian uses, choose LEU instead of HEU for its research reactors, and open civilian nuclear installations to IAEA inspections.

*RFE/RL News Briefs*, 5/2/94-5/6/94, p. 5 (11309).

## RUSSIA WITH UNITED STATES AND ISRAEL

### 3/94

Reimer Duerr, manager of advanced technology at the Raytheon Engineers & Constructors of the U.S. states that in the near future the company plans to test its thorium fuel in a Russian pressurized water reactor; the project will be done with technology from Radkowsky Thorium Power Corp., which was founded by Alvin Radkowsky, a professor at Israel's Tel Aviv University. Raytheon has a licensing agreement with Radkowsky to sell the technology.

Mark Crawford, *Energy Daily*, 3/8/94, p. 26 (11334).

## UKRAINE

### INTERNAL DEVELOPMENTS

#### 2/3/94

The Ukrainian parliament approves the Tri-lateral Agreement signed by President Kravchuk in 1/94 and thereby removes its objections to the Lisbon Protocol of 5/23/92 and to the implementation of START-I.

Reuter, 2/3/94; in *Executive News Service*, 2/4/94 (11366).

#### 4/1/94

The organized crime-fighting department of the Ukrainian Internal Affairs and security Service in Zaporozhe detains a 50-year old unemployed man who reportedly has in his possession two containers of cesium-137, 55 kg in each one. The man, identified as "P.," is a Zaporozhe resident, and "other criminals were also detained with material evidence," the containers of cesium.

Ukrayinske Radio First Program (Kiev), 4/1/94; in FBIS-SOV-94-064, 4/4/94, p. 49 (11320). *Holos Ukrayiny* (Kiev), 4/5/94; in JPRS-TND-94-010, 5/5/94, p. 37 (11320).

#### 4/8/94

Deputy head of the Nuclear and Radiation Safety Department of Ukraine's Environmental Ministry Konstantin Rudyia refutes reports that quote him as saying that Ukraine is not adequately controlling its uranium mining and processing facilities. On 4/4/94, Itar-Tass had reported that Rudyia said that his recent inspections of the Zheltiy Vodiy facilities in Dnepropetrovsk revealed a complete absence of control over the uranium industry. Rudyia says that such problems are inherent to and shared by all other Soviet-built uranium facilities in the CIS.

Itar-Tass (Moscow), 4/8/94; in FBIS-SOV-94-069, 4/11/94, p. 34 (11273). Galina Nekrasova, Itar-Tass, 4/4/94; in FBIS-SOV-94-064, p. 50 (11273).

## UKRAINE WITH CANADA

### 4/1/94

Canadian Foreign Minister Andre Ouellet announces at a joint press conference with Ukrainian Minister of Foreign Affairs Anatoliy Zlenko that Canada will increase its aid to Ukraine to \$26.5 million, which includes \$15 million for nuclear safety and disarmament. The provision of Canadian technology and expertise in the areas of nuclear safety, waste management, and environmental rehabilitation will be the responsibility of the Bureau for Assistance for Central and Eastern Europe, while the Canadian Atomic Energy Control Board will be responsible for aiding Ukrainian officials in the development of a regulatory system for the nuclear industry.

Christopher Guly, *The Ukrainian Weekly*, 4/17/94, p. 3 (11363).

## UKRAINE WITH CZECH REPUBLIC

### 1994

The Czech company Skoda Jaderne Strojirenstvi (Skoda Nuclear Engineering) signs a contract with Ukraine worth over 60 million korunas to supply spent fuel containers to the Rivne nuclear power plant. Skoda's director, Vaclav Lobovsky, states that Ukraine is considering providing barter payments of electricity or other Ukrainian products.

Vaclav Proks, *Hospodarske Noviny* (Prague), 3/28/94, p. 6; in JPRS-TND-94-008, 4/1/94, p.54 (11279).

## UKRAINE WITH EUROPEAN UNION

### 5/16/94

E.U. foreign ministers decide to place a "soft" linkage between Ukraine's accession to the NPT and the E.U.'s approval of the Treaty on Partnership and Cooperation with Ukraine. Ukraine's Deputy Foreign minister Borys Tarasyuk responds by characterizing the E.U.'s pressure as "unconstructive and illogical," adding that "any attempt to pressure Ukraine will result in the opposite of what is expected." Ukrainian Foreign Minister Anatoliy Zlenko states in 5/

94 that "such an approach is unacceptable for us."

Stephen Nisbet, Reuter, 5/16/94; in Executive News service, 5/16/94 (11283). Reuter, 5/17/94; in Executive News Service, 5/17/94 (11283). Interfax (Moscow), 5/6/94; in FBIS-SOV-94-089, 5/9/94, p. 45 (11283).

## UKRAINE WITH IAEA

1993

In the spring, IAEA safeguard inspectors pay a second visit to Ukraine. The IAEA inspectors, together with the Ukrainian officials from Gosatomnadzor establish a site for their monitoring equipment, which automatically register all of the transactions with nuclear fuel.

*Vestnik Chernobyl'ya*, No. 13(532), 2/94, pp. 1-2 (11379).

## UKRAINE WITH JAPAN

1/24/94

The Japanese Foreign Ministry states that by 3/94 Japan plans to complete the outline agreement for an aid package to Ukraine for the destruction of nuclear weapons previously owned by the USSR. Diplomats from Japan are discussing how much of the \$100 million package, allotted to the CIS in 4/93, will go to Ukraine.

*Itar-Tass* (Moscow), 1/24/94; in JPRS-TND-94-005, 2/25/94, p. 51 (11156).

## UKRAINE WITH MULTI-COUNTRY GROUP

3/94

A four-day "Sarcophagus Safety-94" symposium of experts from Belarus, Canada, Finland, France, Germany, the U.K., Japan, Poland, Russia, Sweden, the U.S., and Ukraine is held on the condition of the Chernobyl-4 reactor in Ukraine.

Ann MacLachlan, Gamini Seneviratne, and Mark Hibbs, *Nucleonics Week*, 4/28/94, pp. 1, 8-10 (11394).

4/28/94

Ukraine's First Deputy Foreign Minister states that Ukraine intends to request \$20 billion of G-7 assistance for nuclear disarmament and for safety upgrades at the Chernobyl nuclear power plant. In 1/94, the U.S., U.K., Canada, Japan, Spain, Italy, the Netherlands, Belgium, Germany, Finland, Denmark, and Norway had expressed their willingness to assist Ukraine in the disarmament process.

Itar-Tass (Moscow), 4/20/94; in FBIS-SOV-94-077, 4/21/94, p. 62 (11281). *Nihonkeizai Shimbum* (Japan), 4/94 (11281). News From Ukraine, 2/94, p. 4 (11281).

## UKRAINE WITH RUSSIA

1/94

Gosatomnadzor, the Russian nuclear safety agency, declares that Russia will not send any more nuclear fuel to Ukraine until it accedes to the NPT and accepts formal IAEA safeguards. The Ukrainian government responds by stating that this contradicts the Trilateral Agreement as well as another agreement requiring Russia to supply Ukraine with nuclear fuel.

Ann MacLachlan, *Nucleonics Week*, 2/3/94, p. 1 (11271). Yuriy Aleksandrov, *Nezavisimaya Gazeta* (Moscow), 2/11/94, p. 2; in FBIS-SOV-94-031, 2/15/94, p. 26 (11271). ENS NucNet, 2/21/94 (11271).

2/94

Ukrainian and Russian government officials discuss the transportation schedule of nuclear warheads to Russia, and compensation in the form of nuclear fuel.

Grigoriy Nesmyanovich, *Krasnaya Zvezda*, 2/11/94, p. 1 (10672).

2/23/94

In accordance with the 1/94 Trilateral Agreement, the first shipment of Russian nuclear fuel is sent to Ukraine, according to a spokesman for Russia's Ministry of Atomic Power. The shipment of 120 fuel assemblies was sent from the Elektrostal plant near Moscow to Ukraine's Chernobyl nuclear power plant.

ENS NucNet, 3/3/94 (11275).

3/94

Volga-Vyatka Internal Affairs Administration staff members seize several containers of radioactive Polonium-210 which reportedly had been transported by passenger train from Arzamas-16, across Nizhniy Novgorod Oblast, to Kiev to be used in X-ray machines.

*Komsomolskaya Pravda* (Moscow), 3/12/94 (11195).

3/6/94

In accordance with the Trilateral Agreement reached in 1/94 between the Ukrainian, Russian, and U.S. presidents, the first shipment of sixty Ukrainian nuclear weapons arrive in Russia for dismantlement. The missiles left Ukraine on 3/5/94, according to Russian Defense Ministry spokesman Yuri Soldatenko.

Reuters, AP; in *International Herald Tribune*, 3/7/94 (11365). *Washington Times*, 3/6/94, p. 9 (11365).

3/14/94

A second shipment of 60 nuclear warheads is sent to Russia, according to Ukrainian officials. Valentyn Lemish, head of the parliamentary defense commission, states that the warheads are from the Khmelnytsky missile base. The first shipment of sixty warheads came from Pervomaysk.

John Diamond, *Washington Times*, 3/22/94, p. A10 (11367). Aleksey Agureyev and Sergey Balykov, *Itar-Tass* (Moscow), 3/22/94; in FBIS-SOV-94-056, 3/23/94, pp. 27-28 (11367).

4/14/94

Grigoriy Karasin, the director of the Russian Foreign Ministry's Press and Information Department, reports that the first shipment of LEU "fuel installations" [fuel assemblies] from Russia arrived at Ukraine's nuclear power station. The LEU is being provided as compensation for Ukrainian nuclear warheads that are being shipped to Russia for dismantling.

Itar-Tass World Service (Moscow), 4/14/94; in FBIS-SOV-94-073, 4/15/94, p. 12 (11210).

5/94

Ukraine's Zaporizhzhya nuclear power plant receives a one-year supply of nuclear fuel from Russia's Novosibirsk facility.

Volodymyr Dupak, *Holos Ukrayiny* (Kiev), 5/6/94, p. 4; in FBIS-SOV-94-090, 5/10/94, p. 21 (11272).

## UKRAINE WITH RUSSIA AND UNITED STATES

3/21/94

U.S. Defense Secretary William Perry signs three agreements whereby the U.S. agrees to give Ukraine an additional \$100 million in aid for nuclear disarmament. One of the three agreements allocates an additional \$50 million (on top of \$135 million agreed on previously) for the dismantlement and shipment to Russia of Ukraine's SS-24 and SS-19 nuclear missiles and for the destruction and cleanup of Ukrainian missile silos. The second agreement allocates \$40 million to assist Ukraine in defense conversion, and the third agreement designates \$10 million for the development of a strong accountancy and control system for Ukrainian nuclear material.

Charles Aldinger, *Reuter*, 3/21/94; in *Executive News Service*, 3/21/94 (11368). Ivan Andreev, *Segodnya*, 3/23/94, p. 4 (10589).

## UKRAINE WITH SWEDEN

2/94

The government of Sweden approves a \$6.1 million aid package for developing nuclear facility control and inspection systems in Kazakhstan, Lithuania, Ukraine, and Russia. The plan calls for Sweden to provide security systems and make recommendations for controlling and monitoring the commercial use of nuclear materials.

*Nuclear News*, 2/94, p. 50 (11214).

4/94

A Swedish citizen visiting Ukraine is expelled for allegedly seeking to make contact with nuclear specialists with the goal of removing nuclear warhead components from Ukrainian territory.

*Unian* (Kiev), 4/15/94; in FBIS-SOV-94-075, 4/15/94, p. 52 (11189).

## UKRAINE WITH UNITED STATES

1994

A U.S. consortium drafts a program for the U.S. usage of electronic vapor-coating spray technologies which were designed by

Ukraine's Yevgeniy Paton Arc Welding Institute, a division of the Ukrainian Academy of Sciences. The U.S. program calls for the establishment of U.S.-Ukrainian joint ventures so that the \$10 million technology can be used in U.S. aerospace, nuclear power, medical and automaking industries.

*Ukrinform* (Kiev), 4/4/94, from *Business News Weekly* feature, 3/28/94-4/3/94; in FBIS-SOV-94-065, 4/5/94, p. 37-38 (11282).

2/94

Several members of a U.S. business consortium, which is seeking to modify two Washington-based mothballed nuclear reactors to burn surplus plutonium for a profit, visit Russia to discuss similar plutonium disposal arrangements in Russian PWRs that could be converted to run on plutonium fuel. Construction of a fuel reprocessing plant in Tomsk, Russia is being discussed.

*The Economist*, 2/12/94 (11341).

2/7-8/94

The U.S. Department of Energy and the Ukrainian State Committee on Nuclear Energy discuss ways for the U.S. to assist Ukraine in improving the safety of its nuclear power plants. The U.S. had previously agreed to provide \$30 million in 1994 for safety assistance.

*Ukrainian Nuclear Update*, 2/28/94, p. 12 (11274).

3/4/94

The U.S. and Ukraine sign the "Joint Statement on Development of United States-Ukrainian Friendship and Partnership." The U.S. and Ukraine state that preventing the proliferation of weapons of mass destruction is a common goal, and the U.S. reiterates earlier pledges of Nunn-Lugar funds for Ukraine's disarmament. The U.S. pledged \$177 million in 1993 and \$175 million for 1994 and 1995, \$100 million of which would go towards 1994 projects on defense conversion, the elimination of strategic nuclear weapons, the establishment of an export control system, and the development of an accountancy and control system for nuclear materials. The U.S. also states that it will try to provide an additional \$75 million in 1995.

Letter dated 18 March 1994 from the representatives of Ukraine and the United States of America

to the United Nations addressed to the Secretary-General; in General Assembly Security Council, 49th Session, Document A/49/113 s/1994/339, 3/24/94 (11280).

3/21/94

U.S. Secretary of Defense William Perry signs an agreement with Ukrainian Defense Minister Vitaly Radetsky to provide Ukraine with an additional \$50 million to destroy 46 SS-24 missile silos.

John Diamond, *Washington Times*, 3/22/94, p. A10 (11367).

5/94

A delegation from Ukraine visits DOE's Hanford Nuclear Reservation in Washington state to exchange information on environmental technologies. The Ukrainians are seeking technologies that can be used to clean up the territories affected by the Chernobyl accident.

*NuclearFuel*, 5/23/94, p. 5 (11178).

5/12/94

William Perry, the U.S. Secretary for Defense, states that the U.S. government has given a \$5 million grant to the U.S. firm Westinghouse Electric and Ukraine's Khartron Production Association in order to form the joint venture company Westron. This is the first in a series of defense conversion efforts under the Nunn-Lugar plan. Westron will manufacture control and instrumentation systems for Ukraine's nuclear, coal and hydroelectric power plants. Westinghouse will also contribute \$20 million to the project.

ENS NucNet, 5/27/94 (11269). *Reuter*, 5/12/94; in *Executive News Service*, 5/16/94 (11269). *Ukrainian Weekly*, 5/22/94, p. 2.

5/16/94

Ukraine's Deputy Prime Minister Valery Shmarov states that it is "only logical" and "wouldn't cost that much" for Ukraine to produce its own nuclear fuel. Shmarov states that Ukraine has already begun negotiations with the U.S. firm Westinghouse on initiating nuclear fuel production in Ukraine. It is unclear from his comments whether Ukraine plans to build reprocessing or enrichment facilities, but, according to government officials, the country is likely to

improve its ore processing and fuel rod production plants.

Alexander Tkachenko, Reuter, 5/16/94; in Executive News Service, 5/16/94 (11364).

#### UKRAINE WITH UNITED STATES AND RUSSIA

**3/21/94**

U.S. Defense Secretary William Perry signs three agreements whereby the U.S. agrees to give Ukraine an additional \$100 million in aid for nuclear disarmament. One of the three agreements allocates an additional \$50 million (on top of \$135 million agreed on previously) for the dismantlement and shipment to Russia of Ukraine's SS-24 and SS-19 nuclear missiles and for the destruction and cleanup of Ukrainian missile silos. The second agreement allocates \$40 million to assist Ukraine in defense conversion, and the third agreement designates \$10 million for the development of a strong accountancy and control system for Ukrainian nuclear material.

Charles Aldinger, Reuter, 3/21/94; in Executive News Service, 3/21/94 (11368). Ivan Andreev, *Segodnya*, 3/23/94, p. 4 (10589).

**4/19/94**

Ukrainian Foreign Minister Anatoly Zlenko states that Ukraine needs over \$2 billion to dismantle its nuclear weapons, and adds that the \$352 million in U.S. disarmament aid received thus far is just "a beginning."

Rostislav Khotin, Reuter, 4/19/94; in Executive News Service, 4/21/94 (11276). Interfax, 5/30/94; in FBIS-SOV-94-104, 5/31/94, p. 55 (11276).

## UZBEKISTAN

#### UZBEKISTAN WITH IAEA

**2/94**

The IAEA Board of Governors approves a comprehensive safeguards agreement with Uzbekistan as required for states party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

*IAEA Newsbriefs*, 2/94-3/94, p. 3 (11344).