

# 15 NEWLY-INDEPENDENT STATES

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## ARMENIA

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### INTERNAL DEVELOPMENTS

9/22/94

Armenia signs the International Convention on Nuclear Security.

Aragil Electronic News Bulletin (Yerevan), 9/30/94; in FBIS-SOV-94-191, 10/3/94, p. 50 (11535).

### ARMENIA WITH RUSSIA

6/94

A Russian Ministry of Atomic Energy delegation visits Armenia's Metsamor nuclear power plant to inspect the facility before renovation efforts begin. Director of the Russian Institute of Nuclear Plants Use Armen Abaghian, a member of the delegation, characterizes the state of the plant as "ready to [sic] reconstruction." Another group of Russian specialists will arrive shortly and will remain until the plant is

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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.*

reactivated. The financing of the renovation efforts at Metsamor has yet to be resolved; Abaghian estimates that "some 100 million dollars are needed for reopening the block [at Metsamor]."

Aragil Electronic News Bulletin (Yerevan), 6/5/94; in FBIS-SOV-94-109, 6/7/94, p. 66 (11634). Snark Transcaucasia Economic News (Yerevan), 6/5/94; in FBIS-SOV-94-109, 6/7/94, p. 66 (11634).

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## AZERBAIJAN

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### AZERBAIJAN WITH TURKEY

Late 7/94

Turkish police confiscate 22 pounds of uranium believed to have come from Azerbaijan; five Turks are arrested. Police have not said whether the material was weapons-grade.

Edith M. Lederer, *Washington Times*, 8/21/94, p. 9 (11814). *Izvestiya* (Moscow), 7/26/94, p. 3 (11642).

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## BELARUS

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### BELARUS WITH JAPAN

9/94

The Japanese Foreign Ministry sends a representative group to Belarus to consider issues for the Committee for Nuclear Nonproliferation, a joint committee created by the two countries in 1993. At the conclusion of the talks, it is expected that the

Belarusian State Nuclear Industry Inspection body and the new committee will finalize an agreement to create a physical security system for nuclear materials in Belarus.

Radio Minsk Network (Minsk), 9/23/94; in FBIS-SOV-94-185, 9/23/94, p. 58 (11793).

### BELARUS WITH UNITED STATES

7/7/94

It is reported that Belarus is receiving approximately \$7 million from the U.S. under the Nunn-Lugar program for dismantlement of nuclear and other types of weapons.

Radio Minsk Network (Minsk), 7/7/94; in FBIS-SOV-94-130, 7/7/94, p. 54 (11525).

9/26/94

It is reported that, according to Secretary of Defense William Perry, the U.S. has concluded 38 agreements with Belarus, Ukraine, Kazakhstan, and Russia, raising U.S. aid to the region to over \$900 million.

Paul Mann, *Aviation Week & Space Technology*, 9/26/94, p. 23 (11680).

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## ESTONIA

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### INTERNAL DEVELOPMENTS

8/26/94

Estonian police arrest an Estonian man who was attempting to smuggle 3 kg of U<sup>238</sup> to Western Europe. Estonian authorities believe this is not an isolated incident and express concern that Estonia is becoming a

major transshipment point for illicit nuclear material from Russia.

Flemming Rose, *Berlingske Tidende* (Copenhagen), 8/27/94; in FBIS-SOV-94-168, 8/30/94, p. 56 (11567).

## ESTONIA WITH RUSSIA

6/30/94

Juri Tikk, Estonian administrator at the former Soviet submarine base in Paldiski, states that dismantling of reactors at the base will proceed in three stages. First, the fuel will be removed and transferred to Russia. Second, Russian specialists will remove "secret military objects" from the reactors. And third, reactor components and radwaste will be transported back to Russia.

ETA (Tallinn), 6/30/94; in FBIS-SOV-94-126, 6/30/94, p. 69 (11730).

7/26/94

Russia and Estonia sign agreements on the withdrawal of Russian troops from the Paldiski submarine base and on the status of retired Russian soldiers and KGB personnel remaining in Estonia. However, an agreement on dismantling reactors at the base is still not finalized.

Aleksandr Krylovich and Valeriy Sevryukov, *Itar-Tass* (Moscow), 8/2/94; in FBIS-SOV-94-149, 8/3/94, p. 11 (11733). *Interfax* (Moscow), 7/28/94; in FBIS-SOV-94-146, 7/29/94, p. 43 (11733).

7/30/94

In Moscow, Russia and Estonia sign an agreement on dismantling the reactors at the Paldiski submarine base. The dismantlement process will involve 210 Russian specialists. All Russian troops — except for the nuclear specialists — are supposed to leave Paldiski by 8/31/94; the reactors must be completely dismantled by 9/30/95.

Aleksandr Krylovich and Valeriy Sevryukov, *Itar-Tass* (Moscow), 8/2/94; in FBIS-SOV-94-149, 8/3/94, p. 11 (11733). BNS (Tallinn), 8/3/94; in FBIS-SOV-94-151, 8/5/94, p. 9 (11733). *Reuter* (Tallinn), 9/20/94; in *Executive News Service*, 9/21/94 (11730).

Early 8/94

Estonian security police arrest an Estonian citizen in the possession of 2.95 kg of low-enriched uranium (LEU), which was given to him by two Russians who brought the material to Estonia in 1/94. The LEU was

packed in 590 cylinders, 10 cm in length and 8 cm in diameter. According to Juri Pihl, the head of the security police, Russian sources informed Estonia in 8/94 that "a certain amount of radioactive material had been smuggled" into the country. The Estonian citizen who then received the material buried it in Polva, where he lives. Police are concerned that the LEU was produced by the same Russian factories that manufacture nuclear weapons.

BNS (Tallinn), 8/25/94; in FBIS-SOV-94-166, 8/26/94, p. 58 (11635).

8/17/94

Juri Tikk, Estonian administrator at the Paldiski submarine base, announces that the equipment for dismantling one of the base's reactors has arrived at Paldiski, along with 25 Russian specialists needed for the process. Tikk says that containers for transporting the fuel will not be brought to Paldiski until the actual removal date.

BNS (Tallinn), 8/17/94; in FBIS-SOV-94-160, 8/18/94, p. 42 (11730).

8/24/94

Russia begins work on dismantlement of the first reactor at the Paldiski submarine base. The entire dismantlement process is expected to take about three months which Estonian Minister of Foreign Affairs Yuri Luikka estimates will cost \$10 million. The West has guaranteed \$5 million in aid. A committee of international experts will supervise the process.

*Novosti* (Moscow), 8/24/94; in *Russia & CIS Today*, 8/24/94, p. 10 (11673). *Izvestiya*, 7/23/94, p. 3 (11673). N. Ostilovskaya, *Novosti* (Moscow), 7/30/94; in *Russia & CIS Today*, 8/1/94, p. 35 (11673). E. Sosipatrova, *Novosti* (Moscow), 8/24/94; in *Russia & CIS Today*, 8/25/94, p. 26 (11673). K. Kozlova, *Segodnya* (TV Moscow), 8/26/94; in *Russia & CIS Today*, 8/29/94, p. 22 (11673).

9/8/94

All the fuel from the first Paldiski reactor has now been transferred from Estonia to Russia.

ETA (Tallinn), 9/8/94; in FBIS-SOV-94-175, 9/9/94, p. 74 (11730).

9/20/94

Dismantlement of the second reactor at the Paldiski base begins. The fuel rods will be removed, packed in special containers, then

transferred to Russia by train. In order to prevent possible terrorist attack, the transport date has not been publicized. Two hundred Russian servicemen are guarding the reactor building during the process.

*Reuter* (Tallinn), 9/20/94; in *Executive News Service*, 9/21/94 (11730).

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## KAZAKHSTAN

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### INTERNAL DEVELOPMENTS

5/94

Viktor P. Zhelnov, chief geologist for Kazakhstan's National Stock Company KATEP, details the status of Kazakhstan's uranium mining and processing, as well as its total mined and untouched uranium reserves. There are five entities which currently mine and refine uranium in Kazakhstan: the KASTOR stock company in western Kazakhstan, the Tselinny Mining and Chemical Combine (CMCC) in the north, and the Central, Stepnoye, and Number Six mining companies in southern Kazakhstan. Of these, only KASTOR and CMCC conduct the full uranium mining and refining cycle; the other three companies explore uranium deposits and mine and produce partially finished product (a solution with a 25-30 percent uranium content, or yellowcake with a 50 percent uranium content). Mining is done using in-situ leaching (ISL), open-pit and underground methods. Zhelnov estimates that the total uranium reserves of Kazakhstan, both proven and estimated, equal 1,168,000 tons. Of these reserves, 888,600 tons have a "forward cost" below \$80 per kilogram.

*Nukem*, 5/94, pp. 9-13 (11772).

8/94

It is reported that the BN-350 fast breeder reactor in Shevchenko has been forced to close down due to lack of funds to purchase nuclear fuel and to pay transport charges, customs duties, and staff salaries. The reactor's management says that, due to lack

of wages, one-fourth of the staff has not worked at the BN-350 since 4/94.

*Nuclear News*, 8/94, p. 47 (11536).

### 8/22/94

It is reported that a 30 MWe reactor near Almaty, which belongs to the National Nuclear Center of Kazakhstan, is attracting the attention of politicians and journalists, despite the fact that it is not operating. According to eye-witnesses, special vehicles designed for the transportation of nuclear materials (including uranium) often leave the reactor site at a frequency which experts believe is too high for an inactive reactor. Some politicians in Kazakhstan surmise that the republic might therefore be trading its nuclear materials.

*Segodnya* (Moscow), 8/22/94; in *Russia and CIS Today*, 8/23/94, p. 22 (11645).

## KAZAKHSTAN WITH AUSTRALIA

### 1994

ERA, one of Australia's two uranium production firms, is now using purchases from Kazakhstan to fill half its current uranium orders.

*Financial Review*, 8/29/94, p. 70 (11774).

## KAZAKHSTAN WITH CANADA

### 1/94-5/94

Canada imports 404.8 tons of uranium from Kazakhstan, most of which is probably for conversion and re-export.

*UNECA News*, 8/31/94, p. 4 (11537).

## KAZAKHSTAN WITH IAEA

### 7/26/94

Kazakhstan's Prime Minister Sergei Tereshchenko and IAEA Director Hans Blix sign an IAEA nuclear safeguards agreement in Almaty. The agreement requires safeguards for the 350 MWe reactor at Shevchenko, a research reactor located in Almaty, and three experimental reactors at the Semipalatinsk nuclear test site. Imposition of nuclear-related export controls are also part of the agreement, including safe-

guards on uranium exports and nuclear fuel pellet production.

*Nuclear News*, 9/94, p. 92 (11764). *Vesti* (Moscow), 7/28/94; in *Russia & CIS Today*, 7/28/94, p. 8 (11644).

## KAZAKHSTAN WITH KYRGYZSTAN

### 6/22/94

It is reported that during a meeting in Almaty between Kyrgyz Prime Minister Abbas Dzhumagulov and Kazakh Prime Minister Tereshchenko, the two leaders reached an agreement under which Kazakhstan will export "raw materials containing uranium" to Kyrgyzstan; the shipments will start in 1994 and continue until 2000.

*Kazakh Radio Network* (Almaty), 6/22/94; in *FBIS-SOV-94-121*, 6/23/94, p. 51 (11560).

## KAZAKHSTAN WITH RUSSIA

### 3/28/94

Russia and Kazakhstan conclude an agreement on the dismantlement and subsequent removal from Kazakhstan of the nuclear device at the facility known as "object 108" located at the Semipalatinsk test site. The device was placed at the site in 5/91 in preparation for a nuclear test.

Olzhas Suleimenov and Vladimir Yakimits, *Rossiyskaya Gazeta*, 6/25/94, p. 4 (11809).

### 6/1/94

Russia turns over control of the Semipalatinsk test range to Kazakhstan.

2X2 Television (Moscow), 6/1/94; in *FBIS-SOV-94-105*, 6/1/94, p. 17 (11538).

### 8/15/94-8/20/94

A Russian-Kazakh "coordinating group" meets in Kurchatov, Kazakhstan, to discuss progress on the dismantling of the nuclear device at the Semipalatinsk test site. The removal process is on schedule. Responding to concerns over the environmental consequences of removing the device, engineers from the Kazakh National Nuclear Center and the Russian Federal Nuclear Center took radiation level readings at the removal site and found that they were not in excess of the norm. The group plans to meet again

before 9/19/94.

*Interfax* (Moscow), 8/25/94; in *JPRS-TEN-94-021*, 8/25/94 (11637).

## KAZAKHSTAN WITH UKRAINE

### 8/27/94

It is reported that Kazakhstan's Defense Minister Sagadat Nurmagambetov and Ukraine's Defense Minister Vitaliy Radetsky met in Kiev to discuss nuclear disarmament issues as well as a draft of a bilateral agreement between the two defense ministries.

*Mayak Radio Network* (Moscow), 8/27/94; in *FBIS-SOV-94-167*, 8/29/94, p. 46 (11524).

## KAZAKHSTAN WITH UNITED STATES

### 3/19/94

After signing the Defense Conversion Agreement with Kazakhstan, the U.S. pledges \$15 million to assist Kazakh defense industries in their conversion efforts. One of the eight industrial enterprises chosen to receive funds is the National Nuclear Center in Kurchatov.

*Jane's Defense Contracts*, 8/94, p. 3 (11778).

### 8/15/94

The "Uranium Purchases Report 1993," published by the U.S. Department of Energy, indicates that in 1993 the U.S. purchased Kazakh U<sup>308</sup> at an average price of \$9.56 per pound; the U.S. bought Russian U<sup>308</sup> at an average price of \$10.02 per pound. In 1993, Russia and Kazakhstan were among the top five exporters of uranium to the U.S.

*NuclearFuel*, 8/29/94, p. 18 (11648).

### 9/26/94

It is reported that, according to U.S. Secretary of Defense William Perry, the U.S. has concluded 38 agreements with Belarus, Ukraine, Kazakhstan, and Russia, raising U.S. aid to the region to over \$900 million.

Paul Mann, *Aviation Week & Space Technology*, 9/26/94, p. 23 (11680).

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## KYRGYZSTAN

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### KYRGYZSTAN WITH KAZAKHSTAN

6/22/94

It is reported that during a meeting in Almaty between Kyrgyz Prime Minister Abbas Dzhumagulov and Kazakh Prime Minister Tereshchenko, the two leaders reached an agreement under which Kazakhstan will export "raw materials containing uranium" to Kyrgyzstan; the shipments will start in 1994 and continue until 2000.

Kazakh Radio Network (Almaty), 6/22/94; in FBIS-SOV-94-121, 6/23/94, p. 51 (11560).

### KYRGYZSTAN WITH PRC

7/94

Following the PRC's 6/10/94 nuclear test at Lop Nor — the third such test in less than two years — Kyrgyz Deputy Foreign Minister A. Aytmatov delivers a message of concern to China's ambassador in Bishkek, Pan Ranglin. Kyrgyzstan opposes nuclear testing on the grounds that it threatens the health of the region's inhabitants and undermines negotiations on a comprehensive test ban treaty. China expresses its willingness to ban all nuclear testing if a corresponding international treaty is signed prior to 1997.

Vladimir Berezhevskiy, *Rossiyskaya Gazeta* (Moscow), 7/21/94, p. 6; in FBIS-SOV-94-142, 7/25/94, p. 59 (11566).

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## LITHUANIA

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### INTERNAL DEVELOPMENTS

8/94

Lithuanian State Nuclear Energy Inspection expert Mikhail Demtshenko claims that it

is "not possible to take away plutonium from [the] Ignalina nuclear power-station either from [a] technical or theoretical point of view." His statement comes in response to Western media reports naming the Ignalina station as a suspected exporter of radioactive materials.

Elta (Vilnius), 8/25/94; in FBIS-SOV-94-166, 8/26/94, p. 59 (11636).

### LITHUANIA WITH GERMANY, POLAND, AND RUSSIA

8/94

Juozas Jacevicius, Deputy Director of the Lithuanian Customs Administration, says that although Lithuania is not a producer of nuclear materials, it is an intermediary for the smuggling of such materials. Because customs agents do not have the proper equipment to detect radiation, there is no way to find nuclear substances as they come into or go out of Lithuania. Radioactive materials from Moscow, Kaliningrad, and St. Petersburg can come through Lithuania en route to Poland and Germany via train, since train cars cannot be checked in transit "because doors are locked from the inside." Lithuania's Prosecutor General Paulauskas says that although he "could arrest at least one border guard a day for taking bribes," he does not do it.

Horst Stenzel, ZDF Television Network (Mainz), 8/19/94; in FBIS-SOV-94-162, 8/22/94 (12016).

### LITHUANIA WITH RUSSIA

8/94

It is disclosed that on 11/16/93 the Lithuanian government cancelled construction of a third reactor at the Ignalina nuclear power plant, and that there is no prospect of constructing another unit in the immediate future. Ignalina generates more than 80 percent of Lithuania's electricity. Nuclear fuel and reactor components for Ignalina are purchased solely from Russia, which has recently increased the prices for these products. Radwaste storage for the Ignalina plant will run out for its first unit in 9/94, and for the Ignalina-2 unit in 7/95.

*Nuclear Europe Worldscan*, 7-8/94, p. 58 (11735).

### LITHUANIA WITH UNITED KINGDOM

1994

Lithuania completes negotiations with the U.K. firms NNC and Scottish Nuclear on a contract to implement a series of technical and procedural safety improvements at the Ignalina nuclear power plant. The contract is worth 1.9 million ECU.

*Nuclear Europe Worldscan*, 5-6/94, p. 24 (11780).

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## MOLDOVA

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### MOLDOVA WITH ROMANIA AND RUSSIA

6/21/94

Simion Lacramioara, chief of the Moldovan Ministry of Interior Department for Combatting Organized Crime, reports that a group of smugglers was arrested last week while trying to sell a tank filled with 1 kg of the radioactive material gamma cobalt-60 to a foreign merchant for \$20,000. This was the first smuggling incident where Moldovan police found material of a "high quality." A Romanian citizen is believed to have ordered the substance, but officials lack sufficient evidence for his arrest. The material was brought into Moldova from Russia. Three Moldovan citizens, Ion Petcu, Alexandru Budoianu, and Simion Tarlev, and one Russian collaborator were apprehended after being monitored by the Moldovan Ministry of Interior for four months. One source reports that only two Moldovans were arrested. The confiscated material had the potential to pollute the entire Moldovan region. Although the container was "factory-made" and hermetically sealed, a small leak of the substance was discovered by experts. Moldova has recently experienced an increase of nuclear smuggling incidents due to the lack of strict customs controls on Romania's eastern borders.

Basapress (Chisinau), 6/21/94; in FBIS-SOV-94-122, 6/24/94, p. 56 (11531). Interfax (Moscow), 6/22/94; in JPRS-TND-94-014, 7/13/94, p. 43 (11568). Interfax (Moscow), 6/22/94; in FBIS-SOV-94-121, 6/23/94, p. 49 (11633).

## RUSSIA

### INTERNAL DEVELOPMENTS

2/94

Yuri Vishnevsky, head of the Russian Atomic Industry Inspectorate, says that the Ministry of Atomic Energy and the Defense Ministry are obstructing nuclear inspections and attempts at effective regulation. Vishnevsky says, "This situation cannot be tolerated any longer. These facilities should be placed under [outside] supervision, under inspectors only responsible for safety and for the removal of any problems." Vishnevsky notes that nuclear material security is hampered by the fact that installations are spread out and are "accessible to about 14,500 enterprises and individuals."

*Washington Post*, 8/19/94, p. 32 (11588).

3/94

Members of Russia's Antiterrorist Service — a part of the Federal Counterintelligence Service's (FCS) St. Petersburg Directorate — arrest several people, including a butcher and a plumber, who were attempting to sell 3.05 kg of "highly enriched uranium dioxide." The material was stolen from an "enterprise near Moscow" and was stored in a glass jar and a metal flask. According to the head of the St. Petersburg FCS, Yevgeniy Lukin, "the mole fraction of the uranium-235 in the mixture of isotopes was 90 percent." Earlier, the arrested men were trying to pass off radioactive waste or LEU as strategic raw materials, but the current incident is believed to involve actual weapons-grade material. The smugglers, now being interrogated in St. Petersburg, will face charges of radioactive materials theft in Moscow under Article 223, Note 3.

Anderey Ishchenko, *Yezhednevnyaya Gazeta* (Moscow), 6/9/94, p. 1; in FBIS-SOV-94-111, 6/9/94, p. 35 (11669).

4/94

Five and one half kilograms of U<sup>238</sup>, which is unsuitable for military use, are stolen from

the Research Institute of Physics and Technology in Chelyabinsk-70 (Snezhinsk); in 7/94, it was reported that the material had been recovered and, according to the Associated Press, a number of people were arrested for the crime. Along with the uranium, some 150 g of platinum were found. One counterintelligence officer in Chelyabinsk has suggested that the thief intended to cover the uranium cylinder with platinum and then sell it as an ingot of precious metal. Russia is currently investigating approximately 50 cases of smuggling of non-weapons-grade uranium.

Vladimir Ivanidze, *Izvestiya*, 7/9/94, p. 1 (11672). Associated Press, 7/8/94; in UI News Briefing, 7/6-12/94, p. 3 (11672).

4/94

An article in the Paris journal *Al-Watan Al-Arabi* carries portions of a report purportedly written by the Russian counterintelligence service detailing chemical and nuclear weapons proliferation concerns in the Central Asian republics. The report states that most nuclear and other military scientists formerly working in Central Asia — approximately 3,000 in number — are now in Britain, Germany, France, Japan, Sweden, and the U.S. The report also notes that sales of advanced weapons and technology to Iran, Pakistan, and Iraq are not being stopped and that a secret Kyrgyz "chemical and laser weapons laboratory had disappeared and was apparently sold off."

*Al-Watan Al-Arabi* (Paris); in Steven Zaloga, *Armed Forces Journal International*, 7/94, p. 43 (11629).

4/94

Alexei Lebedev, director of protocol and personnel at the Ministry of Atomic Energy, says that the facilities which store plutonium from dismantled nuclear weapons lack proper security.

Edith M. Lederer, *Washington Times*, 8/21/94, p. 9 (11814).

6/94

It is reported that work is underway on Russia's first underground nuclear facility in Apatity, located on the Kola peninsula.

Mayak Radio Network (Moscow), 6/23/94; in JPRS-TND-94-014, 7/13/94, p. 14 (11577).

6/1/94

Major General Vitaliy Yakovlev, deputy chief of the Main Administration of the Russian Ministry of Defense, says that while the theft of any nuclear material from Russia is cause for concern, stolen Russian uranium is "enriched to 2-4 [percent], and rarely 30 percent," rendering it useless for an explosive device. Yakovlev also talks of the stringent control system that makes it "impossible to lose not only a nuclear charge but even its vehicle or any other non-nuclear part of it." Yakovlev says that the 1,500 Ukrainian nuclear devices Russia has destroyed is over half of the total number of devices removed from Ukraine. According to Yakovlev, the USSR began removing nuclear weapons from the Warsaw Pact countries and from Soviet republics in response to growing political instability during the era of perestroika, such that by the end of 1991 only Ukraine, Belarus, and Russia still had "nuclear ammunition." Yakovlev says there is still a need to conduct nuclear testing to make nuclear arsenals safer. Finally, Yakovlev says that Russian nuclear forces are still safe and reliable and Russia is not planning any new weapons systems due to their high cost.

Kirill Belyaninov, *Literaturnaya Gazeta* (Moscow), 6/1/94, p. 10; in JPRS-TND-94-014, 7/13/94, p. 46 (11723).

Early 6/94

Viktor Mikhailov of Russia's Ministry of Atomic Energy announces that Russia will disarm all but 3,500 of its most effective nuclear weapons by 2003. Mikhailov states that Russia's security needs will be met in spite of this tenfold reduction. Nuclear disarmament costs Moscow up to 1 trillion rubles a year.

Radio Moscow World Service (Moscow), 6/6/94; in FBIS-SOV-94-10, 7/21/94, p. 44 (11565).

6/4/94

It is reported that Russia can start receiving "spent ionizing radiation sources" from abroad at the Moscow Interregional Radioactive Waste Storage center near Zagorsk, as soon as customs and financial questions are settled.

*Izvestiya* (Moscow), 6/4/94, p. 1; in JPRS-TND-94-016, 6/24/94, p. 32 (11676).

**6/9/94**

Russian Minister of Defense Pavel Grachev details Russia's doctrine on the purposes of its strategic forces. Grachev renounces the USSR's stand on non-first-use, and declares that Russia's nuclear weapons are a means to prevent large-scale war, adding that "we do not view nuclear weapons as a means of conducting military actions, but as a means of deterrence against the unleashing of aggression." Grachev declares that Russia has no intentions of using its nuclear weapons against any state party to the NPT, except in the cases of either outright attack by an NPT state allied with a nuclear weapon state or "joint actions" between an NPT state and a nuclear weapons state "to implement or support" such an attack. This provision covers all the territory of the Russian Federation, its military forces, and any country allied with Russia.

Pavel Grachev, *Nezavisimaya Gazeta* (Moscow), 6/9/94, pp. 1, 5 (11743).

**6/25/94**

It is reported that a Russian government commission working in the Urals ordered the repayment of debts to military-industrial complex enterprises in the oblast by 7/1/94 for "work carried out under the state order." Viktor Glukhikh, chairman of the State Committee for the Defense Sectors of Industry, said that the southern Urals region contains a concentration of facilities that produce essential equipment for the Russian military, including electronic warfare hardware, missiles, and nuclear weapons, and that defense sector workers in that region are in need of help.

*Krasnaya Zvezda* (Moscow), 6/25/94, p. 3; in FBIS-SOV-94-124, 6/28/94, pp. 35-36 (11532).

**6/30/94**

Three members of Russia's Northern Fleet are arrested for stealing 4.5 kg of enriched uranium from a nuclear fuel depot in Rosta sometime in 11/93. This theft was the second attempt by Northern Fleet members to steal nuclear materials; a prior 7/93 attempt was unsuccessful.

Nikolay Rodionov, *Segodnya* (Moscow), 7/2/94; in FBIS-SOV-94-128, 7/5/94, p. 27 (11792).

**7/94**

Admiral Oleg Yerofeyev, Commander of the Northern Fleet, states that due to lack of funds many of the Yankee Class nuclear submarines falling under START I limitations have not yet been dismantled. Spent fuel has been removed from only 16 submarines while another 44 submarines that have been withdrawn from the fleet remain docked awaiting dismantlement funding from either the Navy or the Russian government. According to Yerofeyev, at the present rate it could be "many, many years" before the roughly 100 nuclear submarines are completely dismantled.

Viktor Litovkin, *Izvestiya* (Moscow), 7/23/94, p. 2; in FBIS-SOV-94-144, 7/29/94, pp. 26-27 (11679).

**7/94**

At a three-day summit between the national crime fighting agencies of the U.S. and Russia, Colonel General Mikhail Yegorov reports that over the past 18 months, 50 incidents of nuclear materials theft have been reported. According to Yegorov, "there have been no thefts of materials which can be made into weapons."

*Monterey Herald*, 7/3/94, pp. 1A, 16A (11797).

**7/7/94**

It is reported that the State Duma adopted the law on "State Policy in the Sphere of Radioactive Waste Handling." The law prohibits the import of waste into Russia. Article 50 of the new law provides for criminal prosecution for violation of the adopted norms on radioactive waste handling and treatment as well as for concealment of information related to the banned activities.

Vladimir Taranov, *Itar-Tass* (Moscow), 7/7/94; in FBIS-SOV-94-130, 7/7/94, pp. 19-20 (11638). Vladimir Yermolin, *Krasnaya Zvezda*, 7/9/94, p. 1; in FBIS-SOV-94-134, 7/13/94, p. 24 (11638).

**7/26/94-7/29/94**

Russian President Boris Yeltsin visits Krasnoyarsk where "important decisions" are made regarding conversion of regional defense plants and, in particular, the plutonium processing facility at Krasnoyarsk-26. Pursuant to the recent agreement between Russia and the U.S., reprocessing plutonium at the plant is to be terminated. Two of the facility's three reactors have not been op-

erational for two years, while the third is still functioning, producing nuclear fuel and heating residences in the city.

*Krasnaya Zvezda*, 7/30/94, p. 1 (11674). *Krasnaya Zvezda*, 7/28/94, p. 1 (11764). Vladimir Gavrilenko, *Krasnaya Zvezda*, 7/29/94, p. 1 (11674).

**8/94**

Sergei Vasiliev, spokesman for Russia's Federal Counterintelligence Service (FCS), reports the arrest of an unspecified number of individuals suspected of smuggling fissile materials. Although he declines to name those arrested or reveal precisely what type of radioactive material was confiscated, Vasiliev firmly denies *Moskovskiy Komsomolets* reports that two of those arrested were FCS officers.

Paris AFP, 8/30/94; in FBIS-SOV-94-169, 8/31/94, p. 35 (11678).

**8/94**

Russian Foreign Ministry Spokesman Grigoriy Karasin states that Russia hopes to conclude the Comprehensive Test Ban (CTB) as soon as possible in order to create an atmosphere more favorable to NPT extension. Karasin states that the CTB must not be a financial burden on Russia, must be easy to implement, and must accommodate Russia's interests as a nuclear power.

Interfax (Moscow), 8/2/94; in FBIS-SOV-94-149, 8/3/94, p. 8 (11661).

**8/94**

Kuznetsov, the former Chief Inspector of the Russian State Committee for Atomic Power Surveillance's (SCAPS) Inspector Bureau, says that a number of nuclear medical facilities and closed nuclear cities (such as Arzamas-16) have inadequate safeguards against theft and that the Ministry of Atomic Energy does not have an accurate picture of how radioactive materials are transported and stored. Kuznetsov states that Russia lacks clear policies to safeguard nuclear materials, that Russia does not have a complete inventory of such materials, and that nuclear engineers are often not paid on time, and then only with "reduced wages." These factors make the system vulnerable to organized crime.

Yoichi Nishimura, *Asahi Shimbun* (Tokyo), 8/28/94, p. 3; in FBIS-SOV-94-168, 8/30/94, pp. 21-22 (11518).

**8/94**

The Russian Security Council Interdepartmental Commission for Defense Security endorses the creation of an "information and analysis center" for dual-use equipment and technology.

*Krasnaya Zvezda*, 8/27/94, p. 3; in FBIS-SOV-94-169, 8/31/94, p. 30 (11736).

**8/94**

Deputy Minister of the Russian Federation for Atomic Energy Yevgeniy Mikerin says that the only smuggled nuclear material reported in the Western press that can be correctly labelled Russian in origin is a collection of uranium cakes, discovered "several years ago," that were produced in Ust-Kamenogorsk. Mikerin adds that the Western push for nuclear security improvements in Russia is a plot to force Russia to purchase Western technology for future storage facilities and a radioactive materials security system.

*Rossiyskaya Gazeta* (Moscow), 8/17/94, p. 6; in JPRS-TND-94-017, 9/8/94, p. 23 (11745).

**8/9/94**

Pavel Bely, managing director of the shipyards in Komsomolsk-na-Amure, announces that the facility is phasing out production of nuclear submarines.

Aleksey Tsvetkov, Itar-Tass (Moscow), 8/9/94; in FBIS-SOV-94-153, 8/9/94, p. 17 (11649).

**8/9/94**

It is reported that 2 kg of radioactive cesium rods were confiscated by the Russian transport police on a commuter train bound for Samara from Moscow. According to police, the cesium rods, which had a radioactive level "25 times higher than the permitted standard," were found in the baggage of a Mordovian resident. Mordovia is noted for being the site of several military-industrial facilities.

Victor Yasmann, *RFE/RL News Briefs*, 8/8/94-8/12/94, p. 4 (11559). *Izvestiya* (Moscow), 8/10/94, p. 1 (11626).

**8/12/94**

A joint police force from Kaliningrad and St. Petersburg arrest three Kaliningrad residents attempting to sell a 60 kg container holding a radioactive substance for \$1 million. Police officials decline to identify the

type or quantity of the substance. However, a later report claims the substance was plutonium. The suspects had kept the radioactive substance in the basement of a home and had been attempting to sell it for more than 18 months.

AFP (Paris), 8/18/94; in JPRS-TND-94-017, 9/8/94, p. 28 (12027). Christopher Parkes and John Thornhill, *Financial Times*, 8/19/94, pp. A1, A16 (12027). *Segodnya*, 8/18/94; in *Russia & CIS Today*, 8/19/94, p. 19 (12027).

**8/21/94**

Two men are arrested for the theft and illegal possession of 9.5 kg of industrial grade U<sup>238</sup> belonging to a nuclear facility at Arzamas-16. The arrested men have never worked for the All-Russian Science Institute of Experimental Physics. In response to the arrests Arzamas Deputy Mayor Valentin Mamyshev says, "We have not adopted any additional security measures. We have the usual entry and exit procedures. As far as I know, the theft of the 9 kg of uranium was the first case of this kind to have ever occurred here." The uranium was possibly obtained from land around the center's detonation sites, where experimental explosions were conducted in 1988; during these experiments, pieces of uranium and other materials were scattered around the site.

Vladimir Gubarev, *Komsomolskaya Pravda*, 8/31/94, p. 2 (11810). *Washington Times*, 8/25/94, p. A13 (12021). Nadezhda Popova, *Rossiskiy Vesti*, 8/26/94 (12021). Enrico Franceschini, *La Repubblica* (Rome), 9/13/94; in FBIS-SOV-94-164, 9/16/94, pp. 30-31 (12021).

**8/30/94**

Russian Foreign Minister Andrei Kozyrev says that nuclear nonproliferation and the physical safeguarding of radioactive materials are a Russian foreign policy priority. Kozyrev notes that because the states surrounding Germany and the U.S. are either NPT members or do not seek nuclear weapons — something that cannot be said about the states bordering Russia — the physical safeguards issue is comparatively of greater concern for Russia than for Western nations.

Yuriy Kozlov, Itar-Tass (Moscow), 8/30/94; in FBIS-SOV-94-168, 8/30/94, p. 5 (11540).

**8/31/94**

It is reported that [Russian politician] Vladimir Zhirinovskiy and several colleagues attempted to gain access to the Arzamas-16 nuclear center but were refused admittance, despite threats Zhirinovskiy made to "fire everyone."

Vladimir Gubarev, *Komsomolskaya Pravda*, 8/31/94, p. 2 (11810).

**9/94**

Colonel Aleksey Zhvanko, commander of Strategic Missile Forces unit X, states that his unit is currently dismantling six strategic missiles per month and will soon be disarming 10-12 missiles per month.

Oleg Bedula, *Krasnaya Zvezda* (Moscow), 9/14/94, p. 1; in FBIS-SOV-94-179, 9/15/94, p. 24 (11657).

**9/1/94**

It is reported that sometime between 8/26/94 and 8/30/94, thieves broke into a radioactive materials storehouse at the Uvarovo chemical plant and stole a capsule containing 4.5 g of cesium<sup>137</sup>.

Irina Shkarnikova, *Nezavisimaya Gazeta* (Moscow), 9/1/94, p. 1; in FBIS-SOV-94-170, 9/1/94, p. 30 (11726).

**9/6/94**

Yuriy Volodin, head of the Department for Supervision over Assessment and Physical Protection of Nuclear Materials of the Russian State Committee for Nuclear Supervision, states that security in Russia over "materials of the first category" [i.e., plutonium and highly-enriched uranium (HEU)] is strong enough to prevent seizure of large enough amounts of these materials to manufacture nuclear weapons. Volodin says that in comparison with defense facilities, there is a greater risk of nuclear theft occurring at research institutions. Volodin goes on to define "nuclear terrorism" as a case where radioactive materials which lack scientific or military interest are stolen. Yuriy Rogozhin, the head of the press center for the State Committee for Nuclear Supervision, also states that there are few dangers of high-grade nuclear materials theft from Russian stocks, and that nuclear terrorism today is comprised primarily of the sale and purchase of LEU taken from chemical combine waste. Both Volodin and Rogozhin state, however, that there is still no stan-

standardized system of assessment and physical control over nuclear materials in Russia, and that this must be changed. Russia lacks a legal infrastructure for the inventory and security of nuclear materials, as well as a universal system of material accountancy and technical infrastructure to implement such a system. Rogozhin says that there is poor coordination between the Defense Ministry, the Ministry of Atomic Energy, the Academy of Sciences, and other state bodies with regards to nuclear safeguards. Volodin states that the Russian government is beginning to prepare a "corresponding resolution" on the subject of nuclear material controls.

Veronika Romanenkova, *Itar-Tass* (Moscow), 9/6/94; in FBIS-SOV-94-173, 9/7/94, p. 33 (11769). Russian Television Network (Moscow), 9/6/94; in FBIS-SOV-94-172, 9/6/94, p. 45 (11769).

#### 9/7/94

Three criminals are arrested in Glazov, in northern Udmurtia, in an attempt to sell 100 kg of U<sup>238</sup>. The material, which contains a mixture of U<sup>235</sup>, is "a by-product from producing fuel for nuclear power stations," and is not usable for weapons production. In 1993, 137 kg of uranium were confiscated in Glazov.

Interfax (Moscow), 9/9/94; in FBIS-SOV-94-176, 9/12/94, p. 31 (11812). I. Khrekin, *Vesti*, 9/9/94; in FBIS-SOV-94-176, 9/12/94, p. 31 (11812). BBC Summary of World Broadcasts, 9/12/94 (11785). *Reuter*, 9/10/94 (11781).

#### 9/16/94

Russian President Boris Yeltsin issues a decree to improve the security of nuclear materials in Russia. The decree creates new standards for storage, utilization and transfer of nuclear materials, including transportation across borders. Russia's nuclear safety oversight agency (Gosatomnadzor) is made subservient to the President. The Foreign Ministry is given the task of negotiating export controls with other CIS republics. The decree also establishes a new government commission, made up of members of the Ministry of Atomic Energy, Ministry of Interior, Ministry of Defense and the Russian Counterintelligence Service to study problems related to the registration and storage of nuclear materials. Whether or not this decree will become a reality is uncertain, however. The CIA stated in 9/94 that

various parties in Yeltsin's government, such as the Ministry of Atomic Energy, the Ministry of Defense, and Gosatomnadzor are currently arguing over the structure of a new nuclear materials control system; this inter-agency squabble could prevent the implementation of a system that could oversee both civilian and military nuclear plants and production facilities. As a result of the debate, the Defense Ministry has refused to allow Gosatomnadzor experts to inspect their nuclear facilities. Although Yeltsin placed Director of Russia's Federal Counterintelligence Service Sergey Stepashin as head of a new government body to monitor nuclear materials trafficking, Stepashin does not have the power to force the bureaucracy to cooperate with his commission.

*Reuter* (Moscow), 9/16/94; in Executive News Service, 9/19/94 (11747). Bill Gertz, *Washington Times*, 9/27/94, p. A11 (11747). Tatyana Smolyakova, *Rossiyskaya Gazeta* (Moscow), 9/21/94, p. 2; in FBIS-SOV-94-186, 9/26/94, p. 28 (11747). Dave Carpenter, *Washington Times*, 9/18/94, p. A6 (11747). *Rossiyskaya Gazeta* (Moscow), 9/21/94, p. 4; in *Russia & CIS Today*, 9/21/94, p. 33 (11806).

#### 9/26/94

The Russian Pacific Fleet press service reports the launch of a new nuclear submarine capable of "patrolling ocean communications in conditions of long-term self-supporting navigation and for fulfilling other multi-purpose missions."

*Itar-Tass* (Moscow), 9/26/94; in FBIS-SOV-94-186, 9/26/94, p. 28 (11660).

#### 9/29/94

Oleg Stakhanov, head of the press service for Russia's Social-Ecological Union (SEU), reports the SEU has learned of a "presidential decree in the making at the Ministry for Nuclear Energy" to establish the Krasnoyarsk Stock Company in order to attract foreign investment for a nuclear fuel processing plant in Krasnoyarsk-26. The SEU opposes construction of the plant because it will pose a considerable threat to the environment of the region.

Interfax (Moscow), 9/29/94; in FBIS-SOV-94-190, 9/30/94, p. 39 (11641).

### RUSSIA WITH ALGERIA

#### 8/94

German Minister Bernd Schmidbauer discloses in an intelligence analysis that Algeria has allegedly hired a number of Russian nuclear experts.

Heinz Vielain, *Welt Am Sonntag* (Hamburg), 8/21/94, pp. 1-2; in JPRS-TND-94-017, 9/8/94, pp. 43-44 (11732).

### RUSSIA WITH ARMENIA

#### 6/94

A Russian Ministry of Atomic Energy delegation visits Armenia's Metsamor nuclear power plant to inspect the facility before renovation efforts begin. Director of the Russian Institute of Nuclear Plants Use Armen Abaghian, a member of the delegation, characterizes the state of the plant as "ready to [sic] reconstruction." Another group of Russian specialists will arrive shortly and will remain until the plant is reactivated. The financing of the renovation efforts at Metsamor has yet to be resolved; Abaghian estimates that "some 100 million dollars are needed for reopening the block [at Metsamor]."

Aragil Electronic News Bulletin (Yerevan), 6/5/94; in FBIS-SOV-94-109, 6/7/94, p. 66 (11634). Snark Transcaucasia Economic News (Yerevan), 6/5/94; in FBIS-SOV-94-109, 6/7/94, p. 66 (11634).

### RUSSIA WITH BRAZIL

#### 8/94

German Minister Bernd Schmidbauer discloses in an intelligence analysis that the Brazilian Embassy in Moscow allegedly forwarded to Brazil 60 employment applications from CIS scientists.

Heinz Vielain, *Welt Am Sonntag* (Hamburg), 8/21/94, pp. 1-2; in JPRS-TND-94-017, 9/8/94, pp. 43-44 (11732).

**9/15/94**

Russia and Brazil sign an agreement to cooperate in civilian uses of nuclear energy. According to Brazilian Foreign Minister Selso Amorim, and Victor Mikhailov of Russia's Ministry of Atomic Energy, the agreement will promote cooperation in such areas as space science, thermonuclear power, applied physics, and superconductivity. The agreement also covers high technology transfer, which Russia maintains in large abundance.

Andrey Kurguzov, *Itar-Tass* (Moscow), 9/16/94; in FBIS-SOV-94-180, 9/16/94, p. 13 (11687).

**9/26/94**

Brazilian National Nuclear Energy Commission (CNEA) President Jose Mauro Esteves dos Santos says that although Russia and Brazil recently signed a nuclear cooperation agreement, Russia will not supply Brazil with technology or equipment for building a commercial-scale centrifuge enrichment plant.

Mark Hibbs, *NuclearFuel*, 9/26/94, p.3 (11664).

**RUSSIA WITH BRAZIL AND UNITED STATES**

**8/1/94**

It is reported that the U.S. firm Nuexco made a deal to obtain uranium from Brazil. Nuexco may supply Brazil with nuclear material from the CIS to be enriched at Urenco.

Michael Knapik, *NuclearFuel*, 8/1/94, pp. 17-18 (11699).

**RUSSIA WITH CANADA**

**9/6/94**

As part of a three-year, \$22 million bilateral Nuclear Safety Initiative begun in 1992, Russia and Canada sign an agreement worth \$7.3 million to upgrade safety standards of Chernobyl-type RBMK reactors. According to Canadian Ambassador Jeremy Kinsman, Canada intends to share its expertise in the safety design and operation of nuclear power facilities. Canada is also expected to cooperate with Russia in the upgrading of channel-type reactor safety by providing

equipment, technologies, software and teams of specialists who will be stationed permanently with operators of Russian nuclear power plants.

Reuter, 9/7/94 (11686).

**RUSSIA WITH CZECH REPUBLIC**

**8/91**

According to information obtained from Czech "special services analysts," a 1991 attempt by Czech authorities to confiscate red mercury may actually have served as a cover for a nuclear material or military technology shipment. The incident happened as follows: on 8/29/91, Interior Ministry personnel and military police descended on Mosnov airport, hoping to confiscate containers of red mercury concealed in hangars; no such material was found and no one was arrested. The analysts say that several officers from the former Soviet Central Group Army actually provided a false tip in an attempt to see how quickly authorities would respond to such an incident, and to "map the optimum transaction channels." In fact, an actual transaction — "which could have been the transport of fissionable material or USSR military technology" — took place concurrently with the Mosnov incident, and was indeed camouflaged by that incident. It is possible that heads of the local secret services "were involved in the affair."

*Lidove Noviny* (Prague), 8/25/94, p. 1; in JPRS-TND-94-017, 9/8/94, p. 13 (11770).

**RUSSIA WITH ESTONIA**

**6/30/94**

Juri Tikk, Estonian administrator at the former Soviet submarine base in Paldiski, states that dismantling of reactors at the base will occur in three stages. First, the fuel will be removed and transferred to Russia. Second, Russian specialists will remove "secret military objects" from the reactors. And third, reactor components and radwaste will be transported back to Russia.

ETA (Tallinn), 6/30/94; in FBIS-SOV-94-126, 6/30/94, p. 69 (11730).

**7/26/94**

Russia and Estonia sign agreements on the withdrawal of Russian troops from the Paldiski submarine base and on the status of retired Russian soldiers and KGB personnel remaining in Estonia. However, an agreement on dismantling reactors at the base is still not finalized.

Aleksandr Krylovich and Valeriy Sevryukov, *Itar-Tass* (Moscow), 8/2/94; in FBIS-SOV-94-149, 8/3/94, p. 11 (11733). *Interfax* (Moscow), 7/28/94; in FBIS-SOV-94-146, 7/29/94, p. 43 (11733).

**7/30/94**

In Moscow, Russia and Estonia sign an agreement on dismantling the reactors at the Paldiski submarine base. The dismantlement process will involve 210 Russian specialists. All Russian troops — except for the nuclear specialists — are supposed to leave Paldiski by 8/31/94; the reactors must be completely dismantled by 9/30/95.

Aleksandr Krylovich and Valeriy Sevryukov, *Itar-Tass* (Moscow), 8/2/94; in FBIS-SOV-94-149, 8/3/94, p. 11 (11733). BNS (Tallinn), 8/3/94; in FBIS-SOV-94-151, 8/5/94, p. 9 (11733).

**Early 8/94**

Estonian security police arrest an Estonian citizen in the possession of 2.95 kg of LEU, which was given to him by two Russians who brought the material to Estonia in 1/94. The LEU was packed in 590 cylinders, 10 cm in length and 8 cm in diameter. According to Juri Pihl, head of the security police, Russian sources informed Estonia in 8/94 that "a certain amount of radioactive material had been smuggled" into the country. The Estonian citizen who received the material buried it in Polva, where he lives. Police are concerned that the LEU was produced by the same Russian factories that manufacture nuclear weapons.

BNS (Tallinn), 8/25/94; in FBIS-SOV-94-166, 8/26/94, p. 58 (11635).

**8/17/94**

Juri Tikk, Estonian administrator at the Paldiski submarine base, announces that the equipment for dismantling one of the base's reactors has arrived at Paldiski, along with

25 Russian specialists needed for the process. Tikk states that containers for transporting the fuel will not be brought to Paldiski until the actual removal date.

BNS (Tallinn), 8/17/94; in FBIS-SOV-94-160, 8/18/94, p. 42 (11730).

### 8/24/94

Russia begins work on dismantlement of the first reactor at the Paldiski submarine base. The entire dismantlement process is expected to take about three months which Estonian Minister of Foreign Affairs Yuri Luikka estimates will cost \$10 million. The West has guaranteed \$5 million in aid. A committee of international experts will supervise the process.

Novosti (Moscow), 8/24/94; in *Russia & CIS Today*, 8/24/94, p. 10 (11673). *Izvestiya*, 7/23/94, p. 3 (11673). N. Ostilovskaya, Novosti (Moscow), 7/30/94; in *Russia & CIS Today*, 8/1/94, p. 35 (11673). E. Sosipatrova, Novosti (Moscow), 8/24/94; in *Russia & CIS Today*, 8/25/94, p. 26 (11673). K. Kozlova, Segodnya (TV Moscow), 8/26/94; in *Russia & CIS Today*, 8/29/94, p. 22 (11673).

### 9/8/94

All the fuel from the first Paldiski reactor has now been transferred from Estonia to Russia.

ETA (Tallinn), 9/8/94; in FBIS-SOV-94-175, 9/9/94, p. 74 (11730).

### 9/20/94

Dismantlement of the second reactor at the Paldiski base begins. The fuel rods will be removed, packed in special containers, then transferred to Russia by train. In order to prevent possible terrorists attacks, the transport date has not been publicized. Two hundred Russian servicemen are guarding the reactor building during the process.

Reuter (Tallinn), 9/20/94; in Executive News Service, 9/21/94 (11730).

## RUSSIA WITH EUROPEAN UNION

### 6/94

Following settlement of a dispute over nuclear fuel trade, the Russian Federation and the European Union (E.U.) sign a partnership and cooperation agreement (PCA). Fears held by several E.U. members — France in particular — about a flood of cheap Russian fuel imports into the E.U. following

the PCA signing had held up completion of the agreement. Under terms of the settlement, uranium imports will continue to be governed by the more restrictive 1989 E.C.-USSR agreement while a new nuclear fuel regime is negotiated by 1997. The aim of negotiations is to achieve a stable market situation by the 1997 date; if the market is not yet stable, the 1989 provisions — which allowed Euratom to impose price and quota limits on Russian imports — will continue to apply.

*Moskovskiy Novosti* (Moscow), 6/26/94-7/3/94, p. B10 (11705). Ann MacLachlan, *Nucleonics Week*, 6/23/94, pp. 14-15 (11688).

## RUSSIA WITH EUROPEAN UNION AND FRANCE

### 7/94

It is reported that the E.C. awarded France's Framatome a \$240,000 contract to study possibilities for improving operating margins of Russian VVERs and breeder reactors; Russia will participate in the study. The study will cover both fast neutron reactors (Russia's BN-600 and France's Superphenix), and pressurized water reactors (PWR).

*Nucleonics Week*, 7/28/94, p. 15 (11800).

## RUSSIA WITH FRANCE

### 6/94

Russia's Rosenergoatom awards a contract to the French engineering group SGN/Reseau Eurisys to work with the Atomenergoprojekt on construction of spent fuel storage sites at the Smolensk and Kursk nuclear plants.

*Nucleonics Week*, 6/16/94, p. 11 (11813).

## RUSSIA WITH GERMANY

### 3/94

Three men are detained in St. Petersburg for allegedly stealing 3 kg of HEU from a Ministry of Atomic Energy facility located near Moscow; the thieves reportedly intended to sell the uranium in Germany for \$300 per gram. The arrest is not made pub-

lic until 6/6/94, after the police recovered all of the uranium in question. Russian intelligence officials say the uranium would have needed further enrichment to be suitable for use in a nuclear weapon.

Tatyana Ustinova, Reuter, 6/7/94 (11795).

### 5/10/94

German police raid the house of Adolf Jackle in Tengen expecting to confiscate counterfeit money, but instead find approximately 60 g of radioactive materials, including 6 g of "supergrade" plutonium: gallium stabilized, delta-phased, and enriched to 99.75 percent Pu<sup>239</sup> (Soviet weapons grade plutonium usually contains 94 percent Pu<sup>239</sup>). Isotopic analysis, conducted two weeks later at the European Transuranium Institute in Karlsruhe, showed that the plutonium had probably been enriched in a gas centrifuge cascade and that the rest of the radioactive material was composed of broken glass and bristles, aluminum, antimony, copper, iodine, mercury, nickel, rubidium, silicon, strontium, and zirconium. The plutonium was believed to be weapons grade because the Tengen material was found to have only trace elements of Pu<sup>240</sup>, Pu<sup>241</sup>, and Pu<sup>242</sup> — all of which are abundant in reactor grade plutonium — and because it had more U<sup>238</sup> than is usually found in reactor grade plutonium. Jackle confessed to receiving plutonium from Mitko M., a citizen of Bulgaria, and investigators suspect that the material was destined for Iraq. Jackle may have been working on behalf of North Korea. The seized materials are said to have been produced either in Mayak (also known as Chelyabinsk-65) or in Smolensk. German investigations suggest that the plutonium had been offered for sale by Russian and East European agents with reported links to the KGB and the Bulgarian trading firm Kintex. Unnamed German sources believe that a Kintex subsidiary transport company, possibly owned by "Romanian interests," could also have been involved in the deal. Western intelligence sources have information showing that at least one Kintex employee was involved in obtaining and attempting to sell the material prior to its seizure. Reports that the plutonium came from Russia, however, have been refuted by the German Chancellor's Office, investigative bodies,

and scientists. Some in Bonn's "political circles" have said that attempts to implicate the Russian mafia with smuggling of nuclear materials may have diverted attention from the real culprits. In 7/94, Director of the E.U. Commission's Euratom Safeguards nonproliferation agency Wilhelm Gmelin said, "The data we have suggests it is highly probable the material was manufactured at a Russian military site." Moscow's Kurchatov Atomic Energy Research Institute and Sverdlovsk-44 have been cited as possible sources of the material.

*Der Spiegel* (Hamburg), 8/22/94, pp. 18-25; in JPRS-TND-94-017, 9/8/94, pp. 39-42 (12023). Mark Hibbs, *Bulletin of the Atomic Scientists*, 9-10/94, pp. 6-7 (11702). Jimmy Burns, Michael Lindemann, and Leyla Boulton, *Financial Times* (London), 7/23-24/94, p. 22 (11624). *Trust and Verify*, 9/94, p. 1 (11627). Yevgeniy Bovkun, *Izvestiya*, 8/2/94, p. 3 (11707). Mark Hibbs, *Nuclear Fuel*, 7/18/94, pp. 1-3 (12030). Mark Hibbs, *Nucleonics Week*, 7/21/94, pp. 14-15 (12030).

#### 6/94

Germany's Chief of Security Bernd Schmidbauer believes the Russian mafia already has access to technology for construction of a nuclear bomb; Schmidbauer fears that such a weapon will be used for nuclear blackmail.

William Boston, Executive News Service, 6/13/94 (11724).

#### 6/94

It is reported that Russia is paying off debts it incurred for an audio and video tape plant by supplying uranium fuel rods to Germany.

Vesti, 6/19/94; in *Russia & CIS Today*, 6/20/94, p. 2 (11808).

#### Mid-6/94

Eight hundred mg of "crudely packed and handled" HEU (87.8 percent U<sup>235</sup>) are seized in Germany. Euratom believes that the material — tested by the Transuranium Institute in Karlsruhe — was intended for use in a submarine or research reactor. Five men and one woman, Czech, Slovak, and German by nationality, are being charged with "illegal possession of nuclear fuel and illegal commerce in weapons related materials." German officials believe that the 800 mg was a sample of a "much larger inventory" located somewhere within the former Soviet Union. It is believed that the uranium originally

came from either a Russian submarine or nuclear power plant. Acting on information from confessions obtained as a result of this seizure, on 7/4/94 German undercover police buy 600 g of 3 percent enriched uranium dioxide pellets at a rest stop near Landshut; German police then arrest a Czech who had 120 3 percent enriched pellets. [It is not clear from the article if the 600 g of pellets are in fact the same pellets in possession of the Czech national] The Czech has told German police that he received the pellets from four Slovaks. The pellets were then transported from Prague to Germany by a taxi driver who, according to German police, was unaware that he was carrying nuclear material. German police said that the "central figure" of the case is a 48 year old German woman, arrested on 8/8/94, who calls herself a real estate agent.

Reuter; in *Washington Post*, 8/12/94, p. A32 (12023). Mark Hibbs, *Nuclear Fuel*, 8/15/94, pp. 25-26 (11586).

#### 6/17/94

The Russian Ministry of Atomic Energy denies Greenpeace accusations that plutonium fuel rods are to be sent from Germany to Russia's Beloyarsk nuclear power facility. According to a Ministry official, using foreign-origin fuel rods in Russian nuclear plants is "technically extremely difficult." Greenpeace believes 123 fuel rods initially planned for use at the Kalkar fast breeder reactor are now intended to be used at Russia's Beloyarsk plant in the southern Urals. The fuel rods are composed of 1.1 tons of plutonium and are presently stored in Hanau in a Siemens operated bunker under federal supervision. Brueter-Kernkraftwerksgesellschaft (SBK) of Germany, a subsidiary of Germany's Rheinisch-Westfaelishes Elektrizitaetswerk AG (RWE), wants to ship the fuel rods to Beloyarsk so they may be used in the BN-600 breeder reactor, which is considered to be unsafe.

DDP/ADN (Berlin), 6/17/94; in FBIS-SOV-94-117, 6/17/94, p. 12 (11558).

#### 7/94

Gen. Mikhail Yegorov, a Russian Interior Ministry official visiting Germany to discuss the Tengen case, does not concede that the material originated in Russia, since its

lead packaging is not the same as used in Russia to transport fissile material. Referring to the 75 or so attempted thefts of nuclear materials in the former Soviet Union in 1992 and 1993, Yegorov noted that, with one exception, all involved "shift personnel, drivers, and other workers — not top-level officials in the weapons complex."

Mark Hibbs, *Bulletin of the Atomic Scientists*, 9-10/94, pp.6-7 (11702).

#### 7/16/94

It is reported that German police in Stuttgart recently seized highly radioactive material believed to have been manufactured in Russia. German authorities will be able to determine the material's origin from indicators in the radioactive material linking it to a specific production plant. The incident is particularly troubling, said Chief of the German Federal Chancellery Bernd Schmidbauer, because it would not have been possible without the assistance of Russian officials. Information collected by German officials will be released to Russian authorities to help them in their own investigation.

Victor Yasmann, *RFE/RL News Briefs*, pp. 2-3, 7/18/94-7/22/94 (11534).

#### 8/94

It is reported that Arzamas-16 was the scene of a recent theft of U<sup>238</sup>, which spurred the director of the facility to create an inventory for all nuclear materials in the center, weapons-grade or otherwise. Commenting on the security of the Arzamas facility, Dr. Stephen Younger, deputy head of the nuclear weapons program at Los Alamos, stated that "on all my visits to Arzamas-16 I see that the security system in the case of these [nuclear] materials is very strict. It is similar to the system which we have in the United States, and therefore, in my view, a leak of such materials is impossible."

Vladimir Gubarev, *Rossiyskaya Gazeta*, 8/30/94, p. 3 (11727).

#### 8/94

It is reported that 120 kg of plutonium may have been smuggled into Germany from Russia for sales to foreign buyers. Samples of this material have been located in deals uncovered during 8/94, the latest event occurred on 8/12/94 in northern Germany.

Although some of this shipment has been recovered, there may be as much as 68 g in northern Germany that have yet to be found.

Christoph Arnowski, ARD Television Network (Munich), 8/15/94; in JPRS-TND-94-017, 9/8/94, p. 34 (11783).

### 8/94

Chancellor Kohl writes two letters to President Yeltsin, requesting the strengthening of nuclear materials security in Russia against theft and smuggling. On 8/12/94, Yeltsin replies to Kohl's first letter, denying that plutonium seized in Germany came from Russia; nonetheless, Yeltsin pledges cooperation in the area of nuclear security. Kohl's second letter advocates the use of qualified scientists to investigate the smuggling incidents. Kohl has raised concerns about the possible brain-drain of Russian scientists to nuclear threshold states, and has pushed the West to find ways to employ these scientists. Some of these threshold states are named in an analysis by German minister Bernd Schmidbauer: India, Iraq, Iran, Libya, Algeria, Brazil, and the PRC. According to information gathered by the German government, each of these countries has tried to utilize Russian expertise and/or materials: India has purportedly received applications for employment from four Russian scientists; Iraq may employ 50 nuclear experts from the former Soviet Union, including a laser specialist from Arzamas-16 and a Ukrainian MIRV expert; Iran has purportedly had 14 CIS nuclear scientists within its borders since the beginning of 1992, and may have concluded employment contracts with 200 technicians and over 50 nuclear experts; two nuclear experts from Russia turned down "official offers" from Libya, though Libya may still be employing a number of Russians in research institutes; Algeria has allegedly hired a number of Russians; the Brazilian Embassy in Moscow allegedly forwarded to Brazil 60 employment applications from CIS scientists; and in 1992, the PRC's Army General Staff published plans for locating and recruiting Russian nuclear experts.

Heinz Vielain, *Welt Am Sonntag* (Hamburg), 8/21/94, pp. 1-2; in JPRS-TND-94-017, 9/8/94, pp. 43-44 (11732). Novosti (Moscow), 8/17/94; in *Russia & CIS Today*, 8/18/94, p. 9 (11732).

### 8/94

Vladimir Chernoshenko, a former director of the Chernobyl clean-up, warns that recent seizures in Germany of Russian-origin fissile materials are "just the tip of the iceberg" and that "there is already more weapons-grade material in [Germany] than...the authorities can imagine." Chernoshenko — who still maintains contact with leading Russian and Ukrainian nuclear authorities — says he and his colleagues estimate that smuggled material amounts to "several tons of uranium" and what "could already be more than 500 kg" of plutonium. Chernoshenko blames the illegal fissile material trade on an "international nuclear mafia" which, despite the plans and operations of the U.S. FBI and the German BND, will be impossible to control.

DDP/ADN (Berlin), 8/17/94; in JPRS-TND-94-017, 9/8/94, p. 34 (11740). Dirk C. Fleck and Olaf Preuss, *Die Woche* (Hamburg), 8/18/94, pp. 18-19; in FBIS-SOV-94-162, 8/22/94, pp. 7-9 (11740). ZDF Television Network (Mainz), 8/19/94; in FBIS-SOV-94-162, 8/22/94, p. 5 (11740).

### 8/10/94

Several hundred kilograms of lithium<sup>6</sup> and 560 g of mixed-oxide (MOX) fuel are seized on a Lufthansa flight arriving in Munich from Moscow. German police arrest a Columbian, Justiniano Torres Benitez, and two Spaniards, Julio Oroz Eguia and Xabier Bengoetxea Arratibel; a fourth Spanish suspect escapes. Torres grew up in Bogota and studied in Moscow for a number of years. On 7/9/94, the Columbian and two Spaniards travelled from Moscow to Munich by train carrying a 4 g sample of weapons-grade plutonium. For a number of weeks, the three men negotiated with two undercover investigators from the Munich Land Office of Criminal Investigations, one of whom was known as "Rafael." On 7/25/94, the three men gave a lead container with the plutonium sample to Rafael. Torres and Bengoetxea left for Moscow to obtain the rest of the shipment and returned on 8/10/94 to the Munich airport. The source of the radioactive material is not known.

Craig R. Whitney, *New York Times*, 8/17/94, pp. A1, A13 (12023). *Der Spiegel* (Hamburg), 8/22/94, pp. 18-25; in JPRS-TND-94-017, 9/8/94, pp. 39-42 (12023). Mark Hibbs, *NuclearFuel*, 8/29/94, pp. 1, 10-12 (11804).

### 8/12/94

German police arrest a 34 year old man from Lower Saxony at the Bremen train station for possession of a 2 g capsule — .05 mg of which is a mixture of americium and weapons-grade plutonium — presumably from the former Soviet Union. The man was attempting to sell the "sample" to a German undercover investigator saying that he could provide up to 70 g of plutonium. A later report discloses that the man was apparently offering to sell 237.6 lbs of U<sup>238</sup> and between 34 and 50 capsules of Pu<sup>239</sup>. The man had a certificate from the All-Soviet Isotope Association which accompanied the plutonium. The sample was said to have had the markings of a Russian nuclear company called "Isotop." In a later television report, an unnamed man, who claims to be the undercover investigator in the case, says that former Stasi agents had organized a nuclear smuggling operation using small Russian boats along Germany's coast. The investigator also discloses that the arresting officers had interfered with his investigation and that, as a result, it was possible that nuclear material was "wandering around north Germany."

*Der Spiegel* (Hamburg), 8/22/94, pp. 18-25; in JPRS-TND-94-017, 9/8/94, pp. 39-42 (12023). Craig R. Whitney, *New York Times*, 8/17/94, pp. A1, A13 (12023). Mark M. Nelson, *Wall Street Journal*, 8/17/94, p. A8 (12022). Christopher Parkes and John Thornhill, *Financial Times*, 8/17/94 (12022). *Trust and Verify*, 9/94, p. 1 (11627).

### Mid-8/94

Russian and U.S. views on the origins of nuclear materials seized in Germany — in particular, materials seized in Tengen on 5/10/94 and in Munich on 8/10/94 — differ from those held by Euratom and Germany. Ministry of Atomic Energy officials say the origin of the Tengen material may be an electromagnetic mass separator operated at the Scientific Research Institute of Experimental Physics at Arzamas-16. These officials say the "S-2" separator produced "micrograms to hundreds of milligrams" of highly pure isotopes of heavy radioactive elements but was not used to produce warhead plutonium. A U.S. official says the S-2 product "matches pretty well" with the isotopic properties of the Tengen material. More generally, the Clinton administration says on 8/

18/94 that it has no evidence suggesting that “any” of the smuggled material came from Russian weapon facilities. However, Euratom safeguards Director Wilhelm Gmelin says there is “a very high probability” that the Tengen plutonium “must have been produced in a weapons factory” or an auxiliary enrichment facility. Chief of Staff at the Safeguards Division Georges Herbillon says the material came from one of three sites: Arzamas-16, Chelyabinsk or Yekaterinburg. German officials, basing their belief on Euratom analysis, say the material was probably diverted from a plutonium separation plant that produced material for warheads. With respect to the Munich material, Terry Hawkins, a senior official at the U.S. Los Alamos laboratory, says “[it] was not produced in a reactor for military weapons” and undoubtedly came from a civilian power reactor. Hawkins adds that the recovered material was MOX fuel, comprised of 87 percent Pu<sup>239</sup>. Euratom’s Herbillon is more equivocal on the origins of the Munich batch: he says it came from Russia “but not necessarily from the same place” as the Tengen material. Director Gmelin says that while there is no evidence that the plutonium came directly from a warhead it is not “logical or reasonable” to believe it came from a civilian power facility.

*NuclearFuel*, 8/15/94, pp. 9-10 (11742). Steve Coll, *Washington Post*, 8/19/94, p. A32 (11745). William Broad, *New York Times*, 8/17/94, pp. A1, A13 (11827).

#### 8/18/94

The Russian Foreign Ministry announces it is investigating allegations that nuclear materials recently seized in Germany came from Russia. It is not known if the Ministry of Atomic Energy and Ministry of Defense, which control Russia’s nuclear facilities, are cooperating with the investigation. Although President Yeltsin signed an order providing for regulatory oversight of nuclear facilities, both the Ministry of Atomic Energy and the Ministry of Defense have repeatedly ignored or denied requests by the Atomic Industry Inspectorate — Russia’s nuclear regulatory body — for information and access to their facilities.

Lee Hockstader, *Washington Post*, 8/19/94, p. 32 (11588).

#### 8/22/94

German intelligence coordinator Bernd Schmidbauer and Russian Counterintelligence Service director Sergei Stepashin end three days of talks with the signing of a memorandum designed to encourage cooperation between the two countries in the fight against nuclear smuggling. Although details of the memorandum are not made public, the negotiators issue a joint communique outlining specific steps to be taken, including: tightening of border controls, establishing an international clearing house of information on illicit nuclear trade and opening of “contact offices” in Moscow and Berlin, which Schmidbauer characterizes as establishing “bilateral liason [sic] at the operational level.” Despite the positive tenor of the talks, the sides remain in disagreement over the origin of plutonium recently seized in Munich. Aleksander Mikhailov, Stepashin’s spokesman, says that based on spectral analysis of the plutonium, Russian experts determined that “this kind of raw material is not produced in Russia.” For their part, German experts present the Russians with their own laboratory results purporting to show that the material was, in fact, of Russian origin; sources differed on whether or not the Germans actually presented some of the material to their counterparts. With respect to the Munich seizure itself, Schmidbauer explains that Russian authorities were not alerted prior to the arrests due to fears that “certain offices in Moscow could have been involved” in the transaction. Further investigation into the Munich incident will be carried out jointly. As the talks opened, the German government announced that the Munich seizure included approximately two lbs. of lithium.

Steven Erlanger, *New York Times*, 8/21/94, p. 9 (11628). Olga Semenova, Itar-Tass (Moscow), 8/22/94; in FBIS-SOV-94-163, 8/23/94, p. 2 (11746). Steven Erlanger, *New York Times*, 8/23/94, p. A5 (11746).

#### 8/23/94

The German television station RTL reports that, based upon anonymous sources, German police had raided a home where they discovered documents — including a \$100 million letter of credit — showing that Baghdad was attempting to purchase pluto-

nium [presumably from Russia]. It was unclear which German nuclear smuggling case this raid was related to, although it has been suggested that the raid could be related to the 5/94 Tengen case, in which the German businessman Adolf Jackle had been given \$100 million “by an unnamed country.”

*International Herald Tribune*, 8/24/94 (11625).

#### 8/24/94

It is reported that Kurchatov Institute officials, following the 8/10/94 German seizure of smuggled MOX fuel and lithium at the Munich airport, admit that the material could have originated in Russia, though they deny that any fissionable material is missing from their institute. Their remarks are at variance with earlier Russian assertions that the material “absolutely” could not have come from Russia. Kurchatov officials also say that Russia’s nuclear material control systems must be modernized.

*International Herald Tribune*, 8/24/94 (11625).

#### 8/25/94

In response to the case of MOX fuel recovered at the Munich airport Yevgeniy Mikerin, director of the Russian Ministry of Atomic Energy’s technology and nuclear chemistry department, says that Russia produces only small amounts of MOX fuel for research purposes and is only in the initial stages of using this kind of fuel. Mikerin stresses that mass production of MOX fuel is not needed because Russian nuclear installations do not currently use it. Mikerin adds that the investigation should determine the fuel’s origin by comparing the properties of the MOX fuel that was seized with those countries that use such fuel in their reactors.

Veronika Romanenkova, Itar-Tass (Moscow), 8/25/94; in FBIS-SOV-94-166, 8/26/94, pp. 5-6 (11882).

#### 8/30/94

Russian and U.S. experts indicate that the nuclear facilities at Arzamas-16 have been improperly identified in Western media reports as the source of the plutonium seized on 8/10/94 at the Munich airport. The plutonium seized in Munich is not of a type

used in or manufactured for Russian warheads and that no weapons-grade Pu<sup>239</sup> is missing in Russia — an assertion confirmed by documentation.

Mikhail Rebrov, *Krasnaya Zvezda*, 8/30/94, p. 3; in FBIS-SOV-94-168, 8/30/94, p. 23 (11519).

### 8/30/94

It is reported that two Russian Federal Counterintelligence Service officers were arrested for smuggling nuclear materials. Although the specific date for the arrest is not given, the report comes on the eve of talks between Chancellor Kohl and President Yeltsin regarding illicit nuclear trade. Yeltsin spokesman Vyacheslav Kortikov calls the report a “provocation.”

Victor Yasmann, *RFE/RL Daily Report*, 8/31/94, p. 1 (11732).

### 9/94

The second round of Russian-German negotiations on nonproliferation of radioactive materials is held in Bonn. These talks are based on the Russian-German security services memorandum signed in Moscow on 8/22/94. According to Aleksandr Lopushinskiy, counsellor of the European department of the Russian Foreign Ministry, this memorandum will serve as the legal foundation for future Russian-German cooperation to combat nuclear smuggling, organized crime and narcotics trafficking. In an effort to facilitate implementation of the memorandum, the security services will establish bureaus in Bonn and Moscow to better coordinate their activities. This cooperation will allow specialists to discover not only the origins of illicit materials, but also how they were acquired and who might be potential buyers.

Gennadiy Kulbitskiy, *Itar-Tass* (Moscow), 9/20/94; in FBIS-SOV-94-183, 9/21/94, pp. 15-16 (11721). Andrey Serov, *Itar-Tass* (Moscow), 9/19/94; in FBIS-SOV-94-181, 9/19/94, p. 8 (11721). Vadim Markushin, *Krasnaya Zvezda*, 8/24/94, p. 3 (11721).

### 9/94

It is reported that the 8/94 seizure of small amounts of Russian nuclear materials in Germany may spur Bonn to consider ways to integrate more ex-Soviet uranium and plutonium into its fuel cycle. This plan would be a means to eliminate potentially

dangerous amounts of nuclear materials through nuclear power generation, and to reduce the chances of fissile material being stolen in Russia and smuggled to unscrupulous buyers. The 8/94 seizure of 560 g of smuggled high-grade MOX casts doubts on a plan by the German firm Siemens AG to build a plant in Russia and use Russian plutonium for making MOX fuel, which would supposedly be a secure way to dispose of plutonium.

Mark Hibbs, *NuclearFuel*, 9/12/94, p. 11 (11765).

### 9/10/94

The German weekly magazine *Focus* issues an advance release of an article containing information from an unpublished 1993 Russian Atomic Supervision Agency report, stating that nuclear materials at the Tomsk-7 nuclear plant were under minimal security and could be stolen by plant staff. The report was written in 1993 and was never published. According to the report, transport containers leaving the site were not being checked for contents, weight measurements of the containers were inaccurate, security installations and equipment were obsolete, and the number of guards on hand to supervise operations were too few. As a result of the lax security, a large quantity of enriched uranium was once taken to a dump. The report concluded that “it cannot be excluded that the staff have amassed stocks of [nuclear] material which has not been accounted for.”

Reuter, 9/10/94 (11781). DDP/ADN (Berlin), 9/10/94; in FBIS-SOV-94-176, 9/12/94, p. 13 (11781).

### 9/17/94

It is reported that Russian Counterintelligence Service Director Sergei Stepashin stated that Germany cannot prove, and no longer claims, that plutonium confiscated in Munich was originally obtained in Russia. Stepashin said that, owing to tight security at the facilities which produce the radioactive substance, theft of weapons-grade plutonium from Russia is not possible. Stepashin described Western media reports on nuclear smuggling as a conspiracy to portray Russia as incapable of safeguarding its nuclear materials, thereby creating a pretext for outside control “of Russia’s security

systems as a whole.”

Interfax (Moscow), 9/17/94; in FBIS-SOV-94-181, 9/19/94, p. 8 (11721).

### 9/21/94

Head of Russian counterintelligence Sergei Stepashin, who met with German intelligence coordinator Bernd Schmidbauer on 9/19/94 and 9/20/94, reports that radioactive materials seized in Germany were not produced in any Russian nuclear facilities “which have been named.” When asked by journalists whether the materials came from Russia, Stepashin would not elaborate. According to Schmidbauer, German and Russian intelligence services now have “very precise clues” concerning the 8/10/94 nuclear smuggling incident in Munich.

*Daily Telegraph*, 9/21/94 (11623).

### 9/28/94

Itar-Tass reports that, based upon information which the IAEA apparently gave to “circles arranging Russian President Boris Yeltsin’s trip to the United States,” the plutonium confiscated in Tengen in 5/94 and at the Munich airport on 8/10/94 was “more than likely” produced in the German towns of Wackersdorf and Alke.

Veronika Romanenkova, *Itar-Tass* (Moscow), 9/28/94; in FBIS-SOV-94-190, 9/30/94, p. 18 (11623).

## RUSSIA WITH GERMANY, LITHUANIA, AND POLAND

### 8/94

Juozas Jacevicius, Deputy Director of the Lithuanian Customs Administration, says that although Lithuania is not a producer of nuclear materials, it is an intermediary for the smuggling of such materials. Because customs agents do not have the proper equipment to detect radiation, there is no way to find nuclear substances as they come into or go out of Lithuania. Radioactive materials from Moscow, Kaliningrad, and St. Petersburg can come through Lithuania en route to Poland and Germany via train, since train cars cannot be checked in transit “because doors are locked from the inside.” Lithuania’s Prosecutor General Paulauskas says that although he “could arrest at least

one border guard a day for taking bribes," he does not do it.

Horst Stenzel, ZDF Television Network (Mainz), 8/19/94; in FBIS-SOV-94-162, 8/22/94 (12016).

### RUSSIA WITH GERMANY, PAKISTAN, AND POLAND

8/17/94

A plutonium smuggling operation involving a Pakistani, a German, and two Poles is uncovered in Berlin. Based on documents seized from the dealers, German authorities assert that the intended recipient for the plutonium is Pakistan. Russia is named as the origin point for the plutonium. Pakistan may be using Germany as a conduit for obtaining plutonium to use in its nuclear program, which already has the necessary fuel and capability to make weapons with HEU, but not plutonium.

J. N. Dixit, *Indian Express* (New Delhi), 8/30/94 (12017). *Jansatta* (New Delhi), p. 6; in JPRS-TND-94-017, 9/8/94, p. 21 (12017). *Indian Express* (New Delhi), 8/20/94, p. 8; in JPRS-TND-94-017, 9/8/94, p. 20 (12017). Aleksandr Sychev, *Izvestiya*, 8/20/94, p. 3 (12017). Press Association (London), 8/18/94; JPRS-TND-94-017, 9/8/94, p. 47 (11587).

### RUSSIA WITH GERMANY AND UNITED STATES

6/94

The U.S. firm Unarex reportedly purchases about 650,000 lbs of CIS-origin U<sup>308</sup> in order to make delivery on a long-term contract to a German utility.

Michael Knapik, *NuclearFuel*, 8/1/94, pp. 17-18 (11699).

### RUSSIA WITH GERMANY AND ZAIRE

9/12/94

A Zairian man flying from Moscow to Germany's Schoenfeld Airport is arrested after it was discovered he was carrying 1.5 lbs. of uranium ore.

*Times* (London), 9/13/94 (11701). Bettina Vestring, Reuter, 9/12/94 (11766).

### RUSSIA WITH HONG KONG

6/19/94

Hong Kong Assistant Commissioner Davis Hodson says "international intelligence" has pinpointed Hong Kong as a possible base for organized crime to traffic in nuclear materials, especially from nuclear storage sites in former Soviet states.

Darren Goodsir, *South China Morning Post* (Hong Kong), 6/20/94, p. 3; in JPRS-TND-94-014, 7/13/94, p. 11 (11794).

### RUSSIA WITH HUNGARY

8/22/94

Police confiscate 2 kg of uranium rods containing 4-5 percent U<sup>235</sup> in Budapest. The two Hungarians arrested intended to sell the material at a price of \$40,000 per kilo, but it is unclear who the potential clients were. Col. Laszlo Tonhauser, head of the National Police Department for Combatting Organized Crime, suspects that the material seized in Hungary is of Russian origin. However, Georgy Kaurov, spokesman for the Russian Ministry of Nuclear Energy, asserts that the rods — which cannot be used in weapons production and are not regarded as strategic raw materials — could have come from any country operating a nuclear power plant. The rods can easily be obtained on the international market for a price much lower than \$40,000 per kilo. According to Kaurov, the high price the smugglers were planning to ask for serves as evidence that they lacked any specific knowledge on the use of radioactive materials.

MTI (Moscow), 8/31/94 (11729). MTI (Budapest), 8/30/94 (11729).

### RUSSIA WITH IAEA

6/29/94

IAEA General Director Hans Blix meets with Russian Foreign Intelligence Service (SVR) Director Yevgeniy Primakov to discuss nuclear nonproliferation issues. An unnamed, high-ranking Russian intelligence officer says Hans Blix is interested in obtaining information gathered by the SVR on the proliferation of nuclear weapons. Not-

ing that the IAEA already receives information directly from both the British and Russian intelligence services and their respective governments, the Russian intelligence official says that an "exchange of such information is in mutual interests."

Itar-Tass (Moscow), 6/29/94; in FBIS-SOV-94-126, 6/30/94, p. 7 (11521).

9/14/94

IAEA spokesman David Kyd says that the Agency is developing a radioactive material safeguards program with CIS and Eastern European states.

Julian Borger, *The Guardian*, 9/15/94 (11782).

### RUSSIA WITH INDIA

8/94

German Minister Bernd Schmidbauer discloses in an intelligence analysis that India has purportedly received applications for employment from four Russian scientists.

Heinz Vielain, *Welt Am Sonntag* (Hamburg), 8/21/94, pp. 1-2; in JPRS-TND-94-017, 9/8/94, pp. 43-44 (11732).

8/24/94

It is reported that during his official visit to Moscow in 8/94, Indian Home Minister S. B. Chavan will discuss the migration of Russian nuclear specialists to Pakistan with Russian officials.

All India Radio (Delhi), 8/24/94; in FBIS-SOV-94-167, 8/29/94, p. 12 (11640).

### RUSSIA WITH IRAN

6/16/94

It is reported that Russia will assist Iran in completing construction of the Bushehr nuclear power plant, which is expected to produce one-seventh of Iran's electricity demand. Currently, Russian specialists are finishing technical research for the project. The plant is scheduled for completion by 1995.

Oleg Kuzmin, Itar-Tass (Moscow), 6/16/94; in FBIS-SOV-94-117, 6/17/94, p. 12 (11801).

8/94

German Minister Bernd Schmidbauer discloses in an intelligence analysis that Iran

has purportedly had 14 CIS nuclear scientists within its borders since the beginning of 1992, and may have concluded employment contracts with 200 technicians and over 50 nuclear experts.

Heinz Vielain, *Welt Am Sonntag* (Hamburg), 8/21/94, pp. 1-2; in JPRS-TND-94-017, 9/8/94, pp. 43-44 (11732).

## RUSSIA WITH IRAQ

8/94

German Minister Bernd Schmidbauer discloses in an intelligence analysis that Iraq may employ 50 nuclear experts from the former Soviet Union, including a laser specialist from Arzamas-16.

Heinz Vielain, *Welt Am Sonntag* (Hamburg), 8/21/94, pp. 1-2; in JPRS-TND-94-017, 9/8/94, pp. 43-44 (11732).

Mid-9/94

It is reported that senior U.S. officials indicate that Iraq could have a nuclear device in three to six months if it obtains the needed enriched uranium or plutonium from the former Soviet Union. Although Iraq would need longer to develop a nuclear weapon deliverable by a missile or plane, it could easily load a device on a truck to be driven to a detonation site in a nearby county, according to one of the U.S. officials. U.S. military expert Michael Eisenstadt says that Iraq has already been involved in attempts to acquire nuclear materials from the former Soviet Union. Historical ties between the Russian and Iraqi militaries also increase the possibilities that Iraq could obtain Russian nuclear materials.

Philip Finnegan, Theresa Hitchens, and Barbara Opall, *Defense News*, 9/12/94-9/18/94, pp. 3, 24 (11847).

## RUSSIA WITH ITALY

9/20/94

The Italian Parliament ratifies a Russian-Italian agreement which will provide 10 billion lira to help Russia in nuclear weapon dismantlement.

Dmitri Polunin, *Itar-Tass* (Moscow), 9/21/94; in FBIS-SOV-94-183, 9/21/94, p. 9 (11656).

## RUSSIA WITH JAPAN AND UNITED KINGDOM

6/23/94

Russia and Japan sign an agreement to construct a processing facility near Vladivostok to extract radioactive materials from liquid nuclear wastes. The mobile barge-type facility — which will be completed in 1995 — will process 1.5 cubic meters of polluted water per hour, which will purify accumulated wastes as well as those which will result from further utilization of nuclear-powered vessels in the next 10 years. The sides agree that actual construction should be open to international bidders. The project will be funded out of the \$70 million that Japan is providing to Russia for nuclear disarmament. In the two days prior to the signing, experts from Japan and the British consulting firm “Kram-Adjins” meet with representatives of the Pacific Fleet, the “Zvezda” nuclear submarine repair plant, the State Committee for Nuclear Safety, the Ministry of Environment and natural resources, and the “Morskoy Registr” as well as the Maritime Kray administration and scientists from Far East Branch of Russian Academy of Sciences to discuss ways of solving the problem of accumulated liquid radioactive wastes.

Kyodo (Tokyo), 6/23/94; in FBIS-SOV-94-122, 6/24/94, pp. 16-17 (11811). Nikolay Litkovets, *Krasnaya Zvezda*, 7/16/94, p. 4 (11639). Yevgeniy Lents, *Itar-Tass* (Moscow), 6/24/94; in FBIS-SOV-94-119, 6/21/94, p. 14 (11639). “Pacific Ocean” Program, Vladivostok Radiostantsiya Tikhyy Okean Maritime Network, 6/22/94; in FBIS-SOV-94-119, 6/24/94, p. 39 (11639).

## RUSSIA WITH KAZAKHSTAN

3/28/94

Russia and Kazakhstan conclude an agreement on the dismantlement and subsequent removal from Kazakhstan of the nuclear device at the facility known as “object 108” located at the Semipalatinsk test site. The device was placed at the site in 5/91 in preparation for a nuclear test.

Olzhas Suleimenov and Vladimir Yakimits, *Rossiyskaya Gazeta*, 6/25/94, p. 4 (11809).

6/1/94

Russia turns over control of the Semipalatinsk test range to Kazakhstan.

2X2 Television (Moscow), 6/1/94; in FBIS-SOV-94-105, 6/1/94, p. 17 (11538).

8/15/94-8/20/94

A Russian-Kazakh “coordinating group” meets in Kurchatov, Kazakhstan, to discuss progress on the dismantling of the nuclear device at the Semipalatinsk test site. The removal process is on schedule. Responding to concerns over the environmental consequences of removing the device, engineers from the Kazakh National Nuclear Center and the Russian Federal Nuclear Center took radiation level readings at the removal site and found that they were not in excess of the norm. The group plans to meet again before 9/19/94.

Interfax (Moscow), 8/25/94; in JPRS-TEN-94-021, 8/25/94 (11637).

## RUSSIA WITH LIBYA

8/94

German Minister Bernd Schmidbauer discloses in an intelligence analysis that while two Russian nuclear experts turned down “official offers” from Libya, Libya in fact may be employing a number of Russians in research institutes.

Heinz Vielain, *Welt Am Sonntag* (Hamburg), 8/21/94, pp. 1-2; in JPRS-TND-94-017, 9/8/94, pp. 43-44 (11732).

## RUSSIA WITH LITHUANIA

8/94

It is disclosed that on 11/16/93 the Lithuanian government cancelled construction of a third reactor at the Ignalina nuclear power plant, and that there is no prospect of constructing another unit in the immediate future. Ignalina generates more than 80 percent of Lithuania’s electricity. Nuclear fuel and reactor components for Ignalina are purchased solely from Russia, which has recently increased the prices for these products. Radwaste storage for the Ignalina plant will run out for its first unit in 9/94, and for the Ignalina-2 unit in 7/95.

*Nuclear Europe Worldscan*, 7-8/94, p. 58 (11735).

**RUSSIA WITH MOLDOVA AND ROMANIA**

**6/21/94**

Simion Lacramioara, chief of the Moldovan Ministry of Interior Department for Combatting Organized Crime, reports that a group of smugglers was arrested last week while trying to sell a tank filled with 1 kg of the radioactive material gamma cobalt-60 to a foreign merchant for \$20,000. This was the first smuggling incident where Moldovan police found material of a "high quality." A Romanian citizen is believed to have ordered the substance, but officials lack sufficient evidence for his arrest. The material was brought into Moldova from Russia. Three Moldovan citizens, Ion Petcu, Alexandru Budoianu, and Simion Tarlev, and one Russian collaborator were apprehended after being monitored by the Moldovan Ministry of Interior for four months. One source reports that only two Moldovans were arrested. The confiscated material had the potential to pollute the entire Moldovan region. Although the container was "factory-made" and hermetically sealed, a small leak of the substance was discovered by experts. Moldova has recently experienced an increase of nuclear smuggling incidents due to the lack of strict customs controls on Romania's eastern borders.

Basapress (Chisinau), 6/21/94; in FBIS-SOV-94-122, 6/24/94, p. 56 (11531). Interfax (Moscow), 6/22/94; in JPRS-TND-94-014, 7/13/94, p. 43 (11568). Interfax (Moscow), 6/22/94; in FBIS-SOV-94-121, 6/23/94, p. 49 (11633).

**RUSSIA WITH MULTI-COUNTRY GROUP**

**1994**

An international center, designed to employ 3,000 Russian scientists previously engaged in nuclear, chemical, and biological weapons development, begins operations in Moscow. The organization is receiving a total of \$70 million from the U.S., Japan, Finland, Sweden, and the E.U. to fund grants for projects in non-defense areas. Although initially created to employ 200-300 scientists, the center expanded because, according to its director, Glenn E. Schweitzer, "more than 60,000 [scientists] have skills in electronics, rocketry or other fields that

could be useful to countries that already have active nuclear-weapons programs."

Fred Hiatt, *Washington Post Foreign Service*, 9/24/94 (11734).

**8/18/94**

It is suggested that Russian nuclear materials are being smuggled through Estonia, Germany, and Latvia, "with meetings taking place in Finland."

Press Association (London), 8/18/94; in JPRS-TND-94-017, 9/8/94, p. 47 (11587).

**RUSSIA WITH NORTH KOREA**

**3/94**

Five North Koreans are forced to leave Moscow for "showing too much interest in nuclear components."

Warren Strobel, *Washington Times*, 7/5/94, pp. A1, A8 (11820).

**6/7/94**

North Korean Foreign Minister Kim Youngnam announces that North Korea is considering Russia's proposal for an international conference to discuss the North Korean nuclear issue and a nuclear-free zone on the Korean Peninsula.

Itar-Tass (Moscow), 6/7/94; in FBIS-SOV-94-110, 6/8/94, p. 1 (11838).

**6/15/94**

Russian Federal Counterintelligence Service Chief Sergei Stepashin reveals that on 6/13/94, three North Koreans were arrested near the Russian-North Korean border in Primorskoye territory because they were believed to have been attempting to obtain nuclear weapons components. It is believed that Russian organized crime is involved in the transactions. Russia's Justice Minister Yuri Kalmykov says that Russia's organized criminals only have nuclear "spare parts," not core technology.

Alan Philips, Hugo Gurdon, and Robert Guest, *Daily Telegraph*, 6/16/94 (11927). Warren Strobel, *Washington Times*, 7/5/94, pp. A1, A8 (11820).

**6/17/94**

Valentin Stepanov, head of the main directorate for space rocket technology of the Russian State Committee on the Defense Industry, describes how, at the end of 1991,

Russia was able to prevent a mass exodus of Russian missile researchers and their families to North Korea. Stepanov says that he does not know whether there were nuclear scientists among the group.

Sergei Pulzhnikov and Sergei Sokolov, *Komsomolskaya Pravda*, 6/17/94-6/20/94; in FBIS-SOV-94-117, 6/17/94, p. 1 (11698).

**7/5/94**

It is reported that *Komsomolskaya Pravda* recently published an article citing claims that Russian scientists working on Pyongyang's nuclear program are now able to avoid risky border crossings into North Korea by sending their nuclear-related calculations through unmonitored computer mail.

Warren Strobel, *Washington Times*, 7/5/94, pp. A1, A8 (11820).

**7/8/94**

Georgi F. Kunadze, Russia's Ambassador to Seoul, announces that Russia is prepared to provide a light water reactor to North Korea to replace its graphite-moderated reactor once Pyongyang complies with international nuclear safeguards under the NPT.

*International Herald Tribune*, 7/9/94-7/10/94 (11855).

**8/5/94**

North Korea rejects the U.S. offer to supply North Korea with a South Korean light water reactor and renews its request for a Russian-model reactor.

Yonhap (Seoul), 8/6/94; in FBIS-EAS-94-152, 8/8/94, p. 47 (11955).

**8/5/94**

It is reported that during a meeting in Moscow, representatives of the Russian Ministry of Atomic Energy and Robert Gallucci, U.S. Assistant Secretary of State, discussed the idea of replacing the Soviet-origin gas-graphite nuclear reactor in North Korea. Viktor Sidorenko, deputy Minister of Atomic Energy, informed Gallucci of Russia's willingness to deliver a new reactor. The idea for the replacement, suggested by the U.S. earlier in 1994, was discussed with Japan and South Korea as a possible means to settle the nuclear crisis. The reactor delivery could be funded either by Japan or South Korea. According to the Min-

istry of Atomic Energy's preliminary estimates, payments for the project could exceed \$1.5 billion and would partially alleviate the financial problems the Russian nuclear industry is experiencing. During the meeting, the U.S. also raised the possibility of reprocessing and storing North Korean spent fuel in Russia.

Alexander Platkovskiy, *Izvestiya*, 8/5/94, p. 3 (11728).

### 8/9/94

It is reported that Russian Ministry for Nuclear Power Engineering specialists, in accordance with the Russian-North Korean Agreement, have discussed the possibility of replacing a North Korean nuclear facility capable of producing weapon-grade plutonium, with three 640 MW reactors. The feasibility of the deal is dependent on finding a means to finance the project. Itar-Tass was told by "reliable sources" in Tokyo that Japan is unofficially considering a finance package whereby North Korea would receive a Russian-made light water reactor to replace the current North Korean facility.

Marina Barinova, Itar-Tass (Moscow), 8/9/94; in FBIS-SOV-94-117, 8/10/94, pp. 10-11 (11798).  
Marina Barinova, Itar-Tass (Moscow), 8/9/94; in FBIS-SOV-94-154, 8/10/94, p. 11 (11798).

### 8/17/94

It is reported that U.S. Assistant Secretary of State Robert Gallucci will go to the capitals of South Korea, China, Russia, and Japan to raise \$4 billion needed to pay for the construction of light water reactors in North Korea, provided North Korea allows inspections of two undeclared nuclear facilities. South Korean officials say that the U.S. will not contribute to the cost of building the light water reactors because U.S. law prohibits financial exchanges with countries categorized as "hostile."

Yonhap (Seoul), *Washington Times*, 8/18/94, p. A13 (12001). *Washington Times*, 8/19/94, p. A16 (12001).

### 9/94

It is reported that Russia prefers to update the Russian-North Korean agreement and supply three 660 MW VVERs [as reported] — the 1985 agreement gives Russia a contract to build four 440 MW VVERs — which

would cost approximately \$4 billion. Russia insists that other countries must pay for the reactors.

*Foreign Report*, 9/29/94 (12019).

### 9/20/94

Russian Deputy Foreign Minister Alexander Panov travels to North Korea for bilateral discussions on Russian participation in the replacement of North Korea's nuclear reactors. Russia proposes replacing North Korea's graphite-moderated reactors with 640 MW light water VVER reactors. Panov says the North Koreans are interested in the Russian reactor, but that further discussion at U.S. and North Korean bilateral talks scheduled for 9/23/94 is required. Russia reached an agreement with North Korea in 1985 to modernize North Korea's reactors with four 440 MW VVER reactors on credit, but the deal was called off in 1992 when North Korea withdrew its part of the funding for the project.

Andrey Smirnov, *Kommersant Daily*, 9/2/94; in FBIS-USR-94-105, 9/2/94, p. 4 (11899).  
Reuter, 9/20/94; in Executive News Service, 9/20/94 (11899).  
Aleksandr Valiyev, Itar-Tass, 9/22/94; in FBIS-SOV-94-185, 9/23/94, p. 14 (11899).

### 9/29/94

Mikhail Demurin, spokesman for the Russian Foreign Ministry, denies the validity of statements made by North Korean defector Lee Chung-kuk that North Korea tested three nuclear bombs in Ukraine and Russia in 1992.

Interfax (Moscow), 9/29/94; in FBIS-SOV-94-190, 9/30/94, p. 13 (11694).

## RUSSIA WITH OECD

### 7/1/94

A Russian-OECD Nuclear Energy Agency (NEA) joint project is announced which will study the interaction of molten core materials (corium) with the lower head of a reactor pressure valve. The project — bearing the Russian name Rasplav — was originally suggested in 4/93. The parties have agreed to a \$6.9 million budget over a three-year time period. An experimental installation will be constructed at the Russian Kurchatov Institute near Moscow.

*Nuclear News*, 8/94, p. 46 (11693).

## RUSSIA WITH PAKISTAN

### 8/24/94

It is reported that during an official visit to Moscow in 8/94, Indian Home Minister S. B. Chavan plans to discuss with Russian leaders the issue of the migration of Russian nuclear specialists to Pakistan.

All India Radio (Delhi), 8/24/94; in FBIS-SOV-94-167, 8/29/94, p. 12 (11640).

## RUSSIA WITH PRC

### 1994

Sun Guangdi, chief engineer for nuclear power at the China National Nuclear Corporation, confirms that the design of two VVER-1000s — which will be supplied by Russia to Liaoning, China's north-east industrial province — has begun. The plant will be located at Wafangdian.

*Nuclear Europe Worldscan*, 5-6/94, p. 25 (11695).

### 6/94

Russia and China are jointly carrying out technical and economic feasibility studies to build two VVER-1000s in China's Liaoning province for a barter exchange worth \$2.5 billion.

Chuangying Wang, *Nuclear Europe Worldscan*, 7/94-8/94, pp. 46, 48 (11876).  
Chen Zhaobo; in *ENS NucNet*, 6/21/94 (11876).

### 8/94

German Minister Bernd Schmidbauer discloses in an intelligence analysis that in 1992, the PRC's Army General Staff published plans for locating and recruiting Russian nuclear experts.

Heinz Vielain, *Welt Am Sonntag* (Hamburg), 8/21/94, pp. 1-2; in JPRS-TND-94-017, 9/8/94, pp. 43-44 (11732).

### 8/23/94

It is reported that the Russian representative from Sverdlovsk Oblast, Vitaliy Mashkov, sent a letter to the Russian government protesting a plan by the Ministry of Atomic Energy to help China construct a centrifuge enrichment plant. Mashkov believes that the Chinese will use the technology to narrow the gap between Russian and Chinese science and will, in turn, eventually dominate the market for such technol-

ogy. In return for the assistance on the centrifuge plant, China will place an order with the Ministry of Atomic Energy for construction of a nuclear power plant.

Aleksandr Pashkov, *Izvestiya*, 8/23/94, p. 2 (11805).

**9/2/94**

Chinese President Jiang Zemin begins talks with Russian leaders in Moscow; the talks are to culminate in the signing of a bilateral agreement under which China and Russia will detarget their nuclear missiles.

G. Hutchings, *Daily Telegraph*, 9/2/94 (11511).

#### RUSSIA WITH ROMANIA

**5/30/94**

It is reported that "several" Romanians, including Niculae Costel and Elisabeta Ana Stefanescu, have made contacts with Russian and Romanian firms for delivery of nuclear-related materials; Costel represents several Romanian companies, such as Rombel and Sircom, while Stefanescu is sole proprietor of Technotours. Costel offered to deliver red mercury, osmium<sup>192</sup>, radium and scandium — in quantities ranging from 15-200 kg — to firms such as Germany's Finanz Consulting AG, Norway's Euronor Business Partner Ltd and DHS-Merger-Alois Geissler. In 1992-93, Costel was in Russia several times to arrange transport and financing of deliveries. On 7/5/92, Stefanescu — who until 1989 held administrative posts in several foreign embassies — used a Bucharest-Rome Tarom flight to deliver a sample of red mercury to an Italian citizen Egidio Mussa, who was also her business partner. Once delivery was made, Stefanescu told Mussa to open a dollar account at the Italian bank Credito Italiano; Stefanescu was the only person entitled to withdraw from the account. Meanwhile, Stefanescu informed the Laespezia-based Italian firm Omnia Tecno SRL that the red mercury was brought to Romania by "an agent of an embassy empowered to deal with this affair." In another transaction, Stefanescu offered 138 kg of red mercury to a Zurich firm, Mueller Treuhand, at a price of \$340,000 per kilogram; Stefanescu claimed the material was purchased in Chelyabinsk and that delivery was "con-

cluded in Moscow with Russian partners." It is not clear if delivery was actually made to the Swiss firm.

Dan Damian, *Evenimentul Zilei* (Bucharest), 5/30/94, p. 1; in JPRS-TND-94-014, 7/13/94, pp. 23-24 (11881).

#### RUSSIA WITH SOUTH KOREA

**6/3/94**

At a meeting with South Korea's Minister for Trade, Industry, and Energy Kim Chol-Su, Russian First Vice Premier Oleg Soskovets announces that Russia is ready to increase the annual amount of LEU supplied to South Korea from 40 tons to 100 tons.

Interfax (Moscow), 6/3/94; in FBIS-SOV-94-109, 6/7/94, p. 7 (11690).

#### RUSSIA WITH SWEDEN

**6/94**

It is reported that Sweden will participate in building nuclear waste storage facilities in the Murmansk oblast.

*Izvestiya*, 6/9/94, p. 1 (11703).

#### RUSSIA WITH SOUTH KOREA AND TAIWAN

**6/14/94**

In parliamentary hearings, Chairman of the Russian State Committee on Atomic Energy Yuri Vishnevskiy confirms a statement by Chang Chung-Cheing, Chairman of Taiwan Energy Company, that negotiations have taken place over the possibility of storing Taiwanese nuclear waste on Russian territory. According to Chang, the Russian Research Institutes, which own 10 nuclear waste storage sites, agreed to reprocess and store Taiwan's nuclear waste if the two parties could settle the cost of the anticipated job. Vishnevskiy added that Russia held similar discussions with South Korean representatives, although no final agreement was signed in either of the two cases.

*Spaseniye*, 6/94, No. 12(13) (11709).

#### RUSSIA WITH UKRAINE AND UNITED STATES

**6/94**

It is reported that in return for two trainloads of Ukrainian nuclear weapons sent last winter and spring, one trainload of Russian reactor fuel was sent to the Zaporozhye nuclear power station.

Maryana Oleynik, *Kiyevskiy Vedomosti* (Kiev), 6/30/94, p. 3; in FBIS-SOV-94-129, 7/6/94, p. 40 (11580).

**6/94**

Aleksandr Shondruk, a member of Ukraine's Commission for Foreign Affairs and CIS Relations, states that several members of the commission intend to ask the Ukrainian president and Foreign Ministry to revise the tripartite agreement. Shondruk says that the Supreme Council will consider halting the removal of warheads from Ukraine if the U.S. and Russia are proven to be in violation of the agreement.

Maryana Oleynik, *Kiyevskiy Vedomosti* (Kiev), 6/30/94, p. 3; in FBIS-SOV-94-129, 7/6/94, p. 40 (11580).

**6/28/94**

The Ukrainian Supreme Council votes to include Oleh Vitovych's proposal — which will temporarily halt nuclear warhead transfers to Russia — on the tentative list of issues to be discussed during its plenary session from 6/28/94 - 7/1/94. Vitovych, chairman of the subcommission for human rights issues, says the U.S. and Russia are in violation of the tripartite agreement and that nuclear weapons may be the only viable deterrent to aggression against Ukraine.

Unian (Kiev), 6/28/94; in FBIS-SOV-94-125, 6/29/94, pp. 33-39 (11815).

**6/28/94**

By a 12-member margin, the Ukrainian parliament votes to debate whether or not nuclear shipments to Russia should be continued. Ukrainian National Assembly extremist Oleh Vitovych, sponsoring the proposal to stop weapon transfers, calls the trilateral agreement "the worst possible strategic error."

Reuter, 6/28/94 (11880).

**7/1/94**

The Ukrainian Supreme Council reverses its 6/28/94 decision to discuss a proposal to end the transfer of nuclear weapons to Russia. Adam Chikal, Deputy Chairman of the Standing Commission for Issues of Defense and State Security, says Ukraine has removed 36 percent of its warheads in return for Russian promises to deliver 25 tons of fuel for nuclear power stations. Chikal adds that the topic of suspending withdrawals was closely examined during the commission's session and that Vitovych's statements regarding this issue are not in line with the facts.

*Demokratychna Ukrayina*, 7/5/94, p. 1; in FBIS-SOV-94-130, 7/7/94, p. 53 (11815).

**7/1/94**

It is reported that, to date, Ukraine has transferred 300 of its 1,600 nuclear warheads to Russia for dismantlement.

Reuter, 9/1/94 (11711).

**7/7/94**

Secretary of Ukraine's National Security Council Vladimir Gorbulin says that due to Ukraine's inability to transfer its nuclear weapons to Russia by the end of 1994, "Ukraine is not ready to join the nuclear weapons Non-Proliferation Treaty this year."

Viktor Demidenko and Mikhail Melnik, *Itar-Tass* (Moscow), 9/7/94; in FBIS-SOV-94-174, 9/8/94, p. 38 (11711).

**7/14/94**

It is reported that Vitaliy Radetsky, Ukrainian Defense Minister, ordered senior defense officers to end withdrawals of nuclear warheads to Russia on the grounds that Moscow and Washington are not fulfilling their tripartite agreement obligations.

*Unian* (Ukraine); in *Russia/CIS Intelligence Report*, 7/14/94 (11652).

**7/15/94**

Valeriy Ivashchenko, Assistant to Ukraine's Deputy Minister of Defense, denies that Defense Minister Radetsky stopped transfers of Ukrainian warheads to Russia. While Ivashchenko agrees that the U.S. and Russia are violating their tripartite obligations, he adds that only the Ukrainian Parliament has the authority to suspend the agreement.

*Unian* (Ukraine); in *Russia/CIS Intelligence Report*, 7/15/94 (11652).

**Late 7/94**

Konstantin Zalutin, Chairman of the State Duma Commission on the CIS and on Compatriots, criticizes the revision of the tripartite agreement. Zalutin believes that if Ukraine and Russia become strategic partners, or if Ukraine's economic constraints become too great, then Russia could not object to a halting of Ukrainian disarmament or to Ukrainian jurisdiction over those weapons remaining on Ukrainian territory.

Interfax (Moscow), 7/30/94; in FBIS-SOV-94-147, 8/1/94, p. 32 (11581).

**8/94**

Ukrainian Defense Minister Vitaliy Radetsky and Ashton Carter, the U.S. defense secretary's assistant for military and political issues, meet in Kiev to discuss the implementation of the tripartite agreement and START I. In an earlier interview, Radetsky complained that while Russia is meeting its obligations under the tripartite agreement — having sent 75 tons of "fuel elements" to Ukrainian nuclear power stations — the U.S. is not meeting its obligations.

Interfax (Moscow), 8/11/94; in FBIS-SOV-94-156, 8/12/94, p. 26 (11653). *Radio Ukraine World Service* (Kiev), 8/11/94; in FBIS-SOV-94-156, 8/12/94, p. 26 (11651). Interfax (Moscow), 8/11/94; in FBIS-SOV-94-156, 8/12/94, p. 26 (11653).

**8/94**

Chairman of Ukraine's Parliamentary Commission for Foreign Affairs Boris Oliynyk states that Kiev's rapid nuclear disarmament "does not obviously contribute to Ukraine's security and does not, to put it mildly, point to its growing international prestige." Oliynyk believes that the nuclear powers are primarily concerned with the 46 modern missiles that will remain under Ukraine's control even after current disarmament obligations are satisfied.

*Molod Ukrayiny* (Kiev), 8/26/94; in FBIS-SOV-94-168, 8/30/94, p. 34 (11659).

**8/94**

Ukrainian President Kuchma states that Ukraine will fulfill its international obligations — including its commitment to withdraw all nuclear weapons to Russia — in accordance with the tripartite agreement.

Marta Kolomayets, *Ukrainian Weekly*, 8/7/94, p. 1 (11683).

**8/3/94**

Vice President Al Gore notes that "as of today" Ukraine has transferred about 300 warheads to Russia. The trilateral agreement obligated Ukraine to remove only 200 warheads by 11/94.

U.S. Department Of State Dispatch, 8/15/94, p. 557 (11683).

## RUSSIA WITH UNITED KINGDOM

**8/18/94-8/19/94**

John Large, a British nuclear expert, says senior Russian nuclear plant workers asked him to arrange for the testing of a sample of nuclear material about the size of "an old sixpence," which weighed approximately 0.25 grams. Large, who declined to identify who had asked him to perform the test, said this was not the first time in his five years of business trips to Russia that he was approached in this manner. Large says that he was first approached by Russians — two engineers and a manager from a nearby nuclear facility who were interested in selling nuclear materials, including plutonium — in summer 1993. Large was also approached in 2/94. Large said that the Russians carried the sealed plutonium sample in "a spherical, iron container measuring several centimeters in diameter." After examining their "English-language documents," Large turned the Russians down. Large believes that people in the city, which he has not named because he still travels to Russia on business, "intended to use the small number of Western engineers in the city to earn money in one way or another." Large also noted that the Russians do not always store small quantities of plutonium, whose alpha radiation can be blocked by a sheet of paper, in lead containers. The radiation emitted by quantities of up to 300 grams of plutonium is difficult to detect.

*Asahi Shimbun* (Tokyo), 8/20/94, p. 27; in FBIS-SOV-94-162, 8/22/94, p. 7 (11585). Press Association (London), 8/18/94; in JPRS-TND-94-017, 9/8/94, p. 47 (11587). Edith M. Lederer, *Washington Times*, 8/21/94, p. 9 (11814).

RUSSIA WITH UNITED STATES

5/94

The U.S. and Russia begin talks on modifying Russia's research reactors to use commercial grade fuel instead of HEU uranium. Argonne National Laboratory and Russia's ENTEK are developing the LEU for these reactors.

Wilson Dizard III, *Nuclear Fuel*, 7/4/94, p. 15 (11722).

5/94-6/94

According to a "Principles of Cooperation" agreement signed between Westinghouse and the Russian Ministry of Atomic Energy, the U.S. firm will join in safety projects on Russia's operating nuclear power plants and those still under construction. Joint ventures between Westinghouse and the Ministry of Atomic Energy are planned to include the development and manufacturing of instrumentation and control systems and worldwide fuel cycle services.

*Nuclear Europe Worldscan*, 5-6/94, p. 24 (11647).

6/7/94

U.S. and Russian companies publicly announce their 6/1/94 formation of "Matek," a joint venture company designed to implement the U.S.-Russian HEU deal. The Russian partners — holding 80 percent of Matek's equity — are Ural Electrochemical Integrated Plant (UCEP), Siberian Chemical Plant, Techsnabexport, Priargunski Mining-Chemical Plant, the Russian Academy of Sciences and a foreign trade company, Litintern. Partners on the U.S. side are Nuclear Fuel Services Inc. (NFS) and Allied Signal, which together formed Allied Fuel Energy Services Co. (AFES) to undertake the joint venture. Matek's Chairman, UCEP Director Vitaly Kornilov, will be joined on the board of directors by six other Russians and two Americans. A key decisionmaker on the board will be Ministry of Atomic Energy Chairman Viktor Mikhailov. In an early 6/94 letter, Mikhailov pressed Vice President Al Gore to enlist U.S. Enrichment Corp. (USEC) as partner to the venture and proposed that the Ministry ship up to 30 metric tons of HEU as UF<sup>6</sup> or UO<sub>2</sub> to the U.S., which was de-

rived from dismantled Ukrainian warheads. Meanwhile, by about 8/94 Matek is expected to have proposals from several commercial entities for air transport of up to 10 or more metric tons of HEU to the U.S.; the shipment could take place by autumn. Russian partners in the joint venture favor HEU blending in the U.S.

*Vestnik Chernobylya*, 6/94, No. 45 (564), p. 3 (11704). Wilson Dizard III, *Nuclear Fuel*, 6/20/94, pp. 1-3 (11689).

6/23/94

In Washington, Vice President Al Gore and Russian Prime Minister Viktor Chernomyrdin sign an agreement based on an earlier 3/16/94 "agreement in principle" between U.S. Energy Secretary Hazel O'Leary and Russian Minister of Atomic Energy Viktor Mikhailov. This latest agreement is comprised of five provisions: 1) Russia will close its three dual-use weapons-grade plutonium-producing reactors at Krasnoyarsk-26 and Tomsk-7 "no later than the year 2000"; 2) the U.S. and Russia will "take all practical steps" to ensure that the first provision is carried out and that alternative energy sources are created at the Krasnoyarsk and Tomsk facilities; 3) Russia agrees not to use any plutonium produced at the aforementioned reactors for weapons purposes prior to the reactors' shutdown; 4) within six months of this agreement's signing verification arrangements — including on-site inspections at Krasnoyarsk-26, Tomsk-7, Chelyabinsk-65, and at Russian and U.S. reactors that formerly produced weapons-grade plutonium — will be worked out; and 5) "as early as possible" the U.S. and Russia will work toward a broader agreement which prohibits plutonium use — produced at any facility — for nuclear weapons purposes. In addition to this agreement, nearly two dozen other accords are reached during Chernomyrdin's Washington visit. Among these, the two sides establish a U.S.-Russian Fissile Material Disposition and Accumulation Working Group; the U.S. promises \$30 million in Nunn-Lugar funds for nuclear material accountancy and control improvements in Russia; and the U.S. pledges to supplement the already committed \$90 in Nunn-Lugar funds to assist Russia in constructing an

excess plutonium and HEU storage facility.

Dunbar Lockwood, *Arms Control Today*, 7/94-8/94, p. 24 (11722). Wilson Dizard III, *NuclearFuel*, 7/4/94, p. 15 (11722).

7/94

R. James Woolsey, Director of the U.S. Central Intelligence Agency (CIA), says his organization will follow operations of organized crime in Russia; Woolsey believes organized crime may have access to nuclear materials through its influence on the Russian military. Without proper safeguards and security measures, nuclear materials can be seized by employees at various facilities. One particular example Woolsey cited was a "recent incident" where a janitor in a Russian nuclear plant took some nuclear material; the material was later recovered by Russian authorities.

*Jane's Defense Weekly*, 8/6/94, pp. 4-6 (11768).

7/19/94

The U.S. Department of Commerce issues a second statement "of administrative intent" on the amended U.S.-Russian suspension agreement. The statement references the escrow account which is referred to in the agreement.

Michael Knapik, *NuclearFuel*, 8/1/94, pp. 17-18 (11699).

7/26/94

The U.S. Department of Energy approves U.S. Siemens Power Corporation exports to Russia of equipment to convert UF<sup>6</sup> to UO<sub>2</sub>. The approval was conditioned on the equipment being utilized only for the manufacture of nuclear fuel for civilian reactors and on the U.S. maintaining the right to forbid any retransfer.

*NuclearFuel*, 10/10/94, p. 22 (11691).

8/94

A coalition of scientists from Los Alamos and Arzamas-16 hold a test to study the effects of "ultrapowerful" magnetic fields on liquids and gases. This was the first time that scientists from the two nuclear complexes worked together on a project.

Vladimir Gubarev, *Rossiyskaya Gazeta*, 8/30/94, p. 3 (11727).

**8/15/94**

The "Uranium Purchases Report 1993," published by the U.S. Department of Energy, indicates that in 1993 the U.S. purchased Kazakh U<sup>308</sup> at an average price of \$9.56 per pound; the U.S. bought Russian U<sup>308</sup> at an average price of \$10.02 per pound. In 1993, Russia and Kazakhstan were among the top five exporters of uranium to the U.S.  
*Nuclear Fuel*, 8/29/94, p. 18 (11648).

**8/19/94**

State Department spokesman Michael McCurry says that since the 6/23/94 meetings between Prime Minister Chernomyrdin and Vice President Gore, the U.S. has "pursued a series of initiatives" to assist Russia in controlling its nuclear materials. Among those initiatives, the U.S. envisions helping Yeltsin establish a Russian-style Nuclear Regulatory Commission, as well as establishing a "model security procedure" at a Russian nuclear facility that could then be duplicated at other Russian installations.  
Martin Sieff, *Washington Times*, 8/19/94, p. A14 (11738).

**8/29/94**

It is reported that the budget of the Siberian Nuclear Physics Institute of the Russian Academy of Sciences was affected by the U.S. decision to stop building a super-collider; the institute received just \$800,000 of an expected \$2.5 million for its part in developing the super-collider, and has been desperately searching for new enterprises to fill its financial loss.

Viktor Yelmakov, *Itar-Tass*, 8/29/94; in FBIS-SOV-94-168, 8/30/94, pp. 11-12 (11646).

**9/94**

It is reported that Russia's OKMB and Kurchatov institutes and General Atomics of the U.S. have established a joint venture to develop the "Gas Turbine-Modular Helium Reactor (GT-MHR)." U.S. and Russian partners will participate on a "50-50 basis" and will equally contribute to financing the joint venture's needs. The joint venture is part of a larger Ministry of Atomic Energy blueprint to eventually replace the plutonium production reactors at Tomsk and Krasnoyarsk with the safer GT-MHR. The GT-MHR reactor is expected to become a

significant energy source in the twenty-first century as it is able to produce electricity while consuming weapons-grade plutonium on a once-through fuel cycle. The venture will probably employ 200 or more Russian scientists and engineers in the short-term.

*Nuclear News*, 9/94, pp. 95-98 (11799).

**9/13/94**

Ministry of Atomic Energy representative in Moscow says that the Russian government is likely to raise the issue of ending U.S. trade restrictions on Russian nuclear material exports during Yeltsin's visit to Washington, which begins on 9/26. U.S. restrictions, however, are likely to remain until Washington formally recognizes Russia as having a "transitional" economy. Under this year's current trade agreement amendment, Russia is allowed to export a total of 3,000 tons of natural uranium to the U.S. in 1994 and 1995 with two restrictions. First, Russia must finalize contracts for 6,000 tons of uranium in order to be able to sell 3,000 tons; U.S. uranium producers will supply the other half. Second, the agreement has special restrictions on exporting enriched uranium to the U.S. It is estimated that Russia has the potential to annually export up to 6,000 tons of uranium and up to 30,000 tons of other nuclear material.

Interfax (Moscow), 9/13/94; in FBIS-SOV-94-179, 9/15/94, p. 13 (11684).

## TAJIKISTAN

### TAJIKISTAN WITH UNITED STATES

**8/94**

It is reported that the U.S. firm La Mer International will import 140,000 lbs of U<sup>308</sup> from Tajikistan. The uranium, carrying the certificate of origin from the Tajik government, "is expected to arrive in the U.S. shortly."

*NuclearFuel*, 8/15/94, pp. 1-2 (11775).

## UKRAINE

### INTERNAL DEVELOPMENTS

**6/94**

Currently, about 90 SS-19 ICBMs with about 540 nuclear warheads are deployed near Khmel'nitsky and Pervomaïsk; one third of these missiles have had their warheads removed. Warheads from the SS-24s — almost all of which have been removed from their missile bodies — "may be located" near the Pervomaïsk base. According to the Tripartite agreement, by the middle of 11/94 all of the warheads are to be removed from SS-24s. By 5/94, 240 warheads were removed from SS-19s and 420 from SS-24s.

*Moskovskiy Novosti*, 6/12-19/94, p. A1 (11706).

**6/94**

Oleh Vitovych, a member of the Ukrainian National Assembly-Ukrainian National Self-Defense, believes that Ukraine should not disarm unilaterally, and that all countries possessing nuclear weapons or attempting to acquire these weapons should be included in disarmament negotiations.

Maryana Oleynik, *Kiyevskiy Vedomosti* (Kiev), 6/30/94, p. 3; in FBIS-SOV-94-129, 7/6/94, p. 40 (11580).

**6/94**

Colonel General Kostyantyn Morozov states that if Ukraine continues its non-nuclear, non-aligned status it could become "an arena for armed conflicts." Morozov states that because Moscow is aligning itself with NATO and will not guarantee Ukrainian security, Ukraine should take measures to guarantee its own security. Included in these measures would be the discontinuation of nuclear weapon withdrawals and the formulation of a policy to address the technical and political aspects for Ukrainian maintenance of nuclear weapons.

Kostyantyn Morozov, *Ukrayinska Gazeta* (Kiev), 6/9/94-6/22/94, p. 8; in JPRS-TND-94-104, 7/13/94, p. 49 (11583).

**6/94**

Oleksandr Moroz, Chairman of the Ukrainian Supreme Council, addresses statements made by the Congress of Ukrainian Nationalists (KUN) which, in effect, label President Kravchuk a traitor for supporting tactical nuclear weapon withdrawals from Ukraine. Moroz supports this assessment and states that the KUN has the right to express such opinions.

Volodymyr Skachko, *Holos Ukrayiny* (Kiev), 6/25/94, p. 2; in FBIS-SOV-94-124, 6/28/94, p. 43 (11582).

**6/1/94**

Ukrainian President Leonid Kravchuk submits a draft decree on Ukraine's accession to the NPT to the parliament.

Igor Porshnev and Vitaly Trubetskoy, *Interfax* (Moscow), 6/2/94; in FBIS-SOV-94-108, 6/6/94, p. 38 (11573).

**6/2/94**

Anton Buteiko, leader of Ukraine's Presidential Service on Foreign Policy, says accession to the NPT is not a pressing issue and that "at present, the Ukrainian parliament must first of all consider the economic issues."

Igor Porshnev and Vitaly Trubetskoy, *Interfax* (Moscow), 6/2/94; in FBIS-SOV-94-108, 6/6/94, p. 38 (11573).

**6/26/94**

President Kravchuk and former Prime Minister Kuchma comment on their positions regarding the NPT. Kravchuk remains in favor of signing the treaty, while Kuchma justifies his opposition by stating that "Ukraine has not received a cent in Western aid for scrapping nuclear weapons."

Nikolay Zherebtsov and Andrey Petrovsky, *Interfax* (Moscow), 6/27/94; in FBIS-SOV-94-124, 6/28/94, p. 39 (11576).

**7/1/94**

Boris Olinyk, Chairman of the Ukrainian Parliament's Foreign Affairs Commission, says that the legislative body would agree to Kiev's participation in the NPT "when we are ready." Olinyk explains that this reluctance to address the NPT is due to parliament's previous difficulties in ratifying START-1, insufficient economic aid, and the fact that Ukraine would be a non-

nuclear weapon state in close proximity to a nuclear weapon state.

Reuter, 9/1/94 (11711).

**7/2/94**

It is reported that Anotoliy Drugovin, Director of the Kharkov interregional plant for the burial of nuclear waste, stated that a "supra-budget fund" should be created to build more nuclear dumps, since four of the existing six Ukrainian nuclear waste storage facilities have run out of space. As of 1/1/94, the Kharkov plant had accumulated 1,226 cubic meters of solid waste and 305 cubic meters of liquid waste. If space is consumed at the current rate, the plant can be only used for another decade, according to Drugovin.

*Interfax* (Moscow), 7/2/94; in JPRS-TEN-94-018, 7/12/94, p. 40 (11643).

**7/13/94**

Ukrainian President Leonid Kuchma states that Ukraine may wait until 1995 to sign the NPT, when a new treaty will be renegotiated at the extension conference.

AFP (Paris), 7/13/94; in FBIS-SOV-94-135, 7/14/94, p. 20 (11712).

**7/22/94**

Boris Oliynyk, Chairman of the Parliamentary Commission for Foreign Affairs and Relations with CIS, says that due to neighboring nuclear weapon states, he would prefer to have a "stage by stage disarmament" of Ukraine's nuclear arsenal.

Radio Ukraine World Service, 7/22/94; in FBIS-SOV-94-142, 7/25/94 (11715).

**8/11/94**

Chairman of the State Committee on Nuclear Energy Use Mikhail Umanets says Ukraine is planning on producing its own nuclear fuel.

*Krasnaya Zvezda*, 8/11/94, p. 1 (11671).

**8/19/94**

Ukrainian President Leonid Kuchma says Ukraine should sign the NPT and that he will ask the Supreme Council to "finalize" the signatory process in October.

Larysa Ostrolutska, *Ukrainya Moloda*, 8/19/94, pp. 4-5; in FBIS-SOV-94-166, 8/26/94, pp. 28-33 (11712).

**9/3/94**

Ukraine's Foreign Minister Hennady Udovenko says that the West should stop pressuring Ukraine to sign the NPT. Udovenko vowed that Ukraine would uphold previous disarmament agreements, but that the West should allow Ukraine's newly-elected parliament "some time" in ratifying the NPT.

Ron Popeski, Reuter, 9/3/94 (11720).

#### UKRAINE WITH CZECH REPUBLIC

**6/94**

The nuclear engineering company Skoda Jaderne Strojirenstri Plzen agrees to sell compact grids to Ukraine for the Rivne nuclear power plant's spent fuel pool. The order will be completed by the end of 6/94 if Ukraine pays another 60 percent of the total cost. Ukraine has already met 20 percent of the total bill.

*Mlada Fronta Dnes* (Prague), 6/14/94, p. 13; in JPRS-TND-94-014, 7/13/94, p. 53 (11719).

#### UKRAINE WITH EUROPEAN UNION

**6/14/94**

Ukrainian President Leonid Kravchuk signs a trade and cooperation agreement with the E.U., but ratification by E.U. member parliaments will depend on Ukraine's participation in the NPT.

*Wall Street Journal*, 6/15/94 (11574).

**6/15/94**

A report indicates that Ukraine's membership in the NPT will not be a condition for ratification of the 6/14/94 E.U.-Ukrainian agreement.

*Nihonkeizai Shimbum* (Japan), 6/15/94 (11574).

#### UKRAINE WITH G-7

**5/31/94**

Deputy Prime Minister Valeriy Shmarov responds to the lack of results in G-7/Ukrainian negotiations over the future of the Chernobyl power plant and an aid package by saying that billions of dollars would be

needed to shut down the Chernobyl station and to construct new nuclear power stations in its place. On 5/16/94, Shmarov said that closing Chernobyl would require 10 years and would cost from \$6-8 billion.

Viktor Demidenko and Mikhail Melnik, Itar-Tass (Moscow), 5/16/94; in FBIS-SOV-94-094, 5/16/94, p. 44 (11570). Viktor Demidenko and Mikhail Melnik, Itar-Tass World Service (Moscow), 5/31/94; in FBIS-SOV-94-105, 6/1/94, p. 35 (11570).

#### UKRAINE WITH IAEA

6/94

Ukraine agrees to sign the Non-Proliferation Treaty (NPT) and will allow IAEA inspections of its facilities. President Kravchuk promises that the Ukrainian Parliament will promptly approve NPT membership.

Reuter, 6/29/94 (11654).

6/27-28/94

During negotiations in Vienna, Ukraine and the IAEA agree *ad referendum* to a draft comprehensive safeguards agreement in which Ukraine will use nuclear materials and facilities only for peaceful purposes and will place them under IAEA safeguards.

IAEA Newsbriefs, 7/94-8/94, p. 7 (11575).

9/30/94

It is reported that an agreement signed between IAEA Director General Hans Blix and Ukrainian Nuclear and Radiation Safety Committee Chairman Nikolay Shteinberg calls for the application of IAEA safeguards and supervision to all Ukraine's nuclear material and limits Ukraine to the use of nuclear material for peaceful purposes only. This agreement will end limitation on the supply of nuclear fuel and "special equipment" to nuclear power stations in Ukraine. The IAEA will soon monitor all Ukrainian nuclear facilities.

Itar-Tass (Moscow), 9/30/94; in FBIS-SOV-94-191, 10/3/94, p. 34 (12029).

#### UKRAINE WITH IRAQ

8/94

German Minister Bernd Schmidbauer discloses in an intelligence analysis that Iraq

may employ 50 nuclear experts from the former Soviet Union, including a Ukrainian MIRV expert.

Heinz Vielain, *Welt Am Sonntag* (Hamburg), 8/21/94, pp. 1-2; in JPRS-TND-94-017, 9/8/94, pp. 43-44 (11732).

#### UKRAINE WITH JAPAN

5/6/94

The Japanese Embassy in Ukraine announces that \$16 million of the \$100 million Tokyo pledged for nuclear weapon dismantlement in Belarus, Kazakhstan, Russia, and Ukraine, will be allocated to Ukraine.

Kiev Radio Ukraine World Service, 5/6/94; in JPRS-TND-94-012, 6/7/94, p. 40 (11571).

9/26/94

In a meeting with Ukrainian Foreign Minister Hennadiy Udovenko, Japanese Foreign Minister Igiro Kono says Japan supports G-7 aid to Ukraine for disarmament, Chernobyl clean-up, and economic reforms.

Interfax (Moscow), 9/27/94; in FBIS-SOV-94-188, 9/28/94, pp. 42-43 (11717).

#### UKRAINE WITH KAZAKHSTAN

8/27/94

It is reported that Kazakhstan's Defense Minister Sagadat Nurmagambetov and Ukraine's Defense Minister Vitaliy Radetsky met in Kiev to discuss nuclear disarmament issues and a draft of a bilateral agreement between the two defense ministries.

Mayak Radio Network (Moscow), 8/27/94; in FBIS-SOV-94-167, 8/29/94, p. 46 (11524).

#### UKRAINE WITH NORTH KOREA

9/29/94

Mikhail Demurin, spokesman for the Russian Foreign Ministry, denies the validity of statements made by North Korean defector Lee Chung-Kuk that North Korea tested three nuclear bombs in Ukraine and Russia in 1992.

Interfax (Moscow), 9/29/94; in FBIS-SOV-94-190, 9/30/94, p. 13 (11694).

#### UKRAINE WITH PRC

6/30/94

PRC Ambassador to Ukraine Zhang Zhen and Ukrainian Supreme Council Chairman Oleksandr Moroz discuss the benefits of expanding technical, scientific, and economic relations between their two countries. Zhen and Moroz agree that cooperation in these areas has yet to reach its potential.

UT-1 Television Network (Kiev), 6/30/94; in FBIS-SOV-94-127, 7/1/94, p. 41 (11658).

#### UKRAINE WITH ROMANIA

8/6/94

It is reported that Romanian police arrested five people in Timisoara for smuggling three kilograms of enriched uranium from Ukraine.

BBC Monitoring Service, 8/6/94 (12026).

#### UKRAINE WITH RUSSIA AND UNITED STATES

6/94

It is reported that in return for two trainloads of Ukrainian nuclear weapons sent last winter and spring, one trainload of Russian reactor fuel was sent to the Zaporozhye nuclear power station.

Maryana Olynyk, *Kiyevskiy Vedomosti* (Kiev), 6/30/94, p. 3; in FBIS-SOV-94-129, 7/6/94, p. 40 (11580).

6/94

Aleksandr Shondruk, a member of Ukraine's Commission for Foreign Affairs and CIS Relations, states that several members of the commission intend to ask the Ukrainian president and Foreign Ministry to revise the tripartite agreement. Shondruk says that the Supreme Council will consider halting the removal of warheads from Ukraine if the U.S. and Russia are proven to be in violation of the agreement.

Maryana Olynyk, *Kiyevskiy Vedomosti* (Kiev), 6/30/94, p. 3; in FBIS-SOV-94-129, 7/6/94, p. 40 (11580).

6/28/94

The Ukrainian Supreme Council votes to include Oleh Vitovych's proposal — which

will temporarily halt nuclear warhead transfers to Russia — on the tentative list of issues to be discussed during its plenary session from 6/28/94 - 7/1/94. Vitovych, chairman of the subcommission for human rights issues, says the U.S. and Russia are in violation of the tripartite agreement and that nuclear weapons may be the only viable deterrent to aggression against Ukraine.

Unian (Kiev), 6/28/94; in FBIS-SOV-94-125, 6/29/94, pp. 33-39 (11815).

#### 6/28/94

By a twelve-member margin, the Ukrainian parliament votes to debate whether or not nuclear shipments to Russia should be continued. Ukrainian National Assembly extremist Oleh Vitovych, sponsoring the proposal to stop weapon transfers, calls the trilateral agreement “the worst possible strategic error.”

Reuter, 6/28/94 (11880).

#### 7/1/94

The Ukrainian Supreme Council reverses its 6/28/94 decision to discuss a proposal to end the transfer of nuclear weapons to Russia. Adam Chikal, Deputy Chairman of the Standing Commission for Issues of Defense and State Security, says Ukraine has removed 36 percent of its warheads in return for Russian promises to deliver 25 tons of fuel for nuclear power stations. Chikal adds that the topic of suspending withdrawals was closely examined during the commission’s session and that Vitovych’s statements regarding this issue are not in line with the facts.

*Demokratychna Ukrayina*, 7/5/94, p. 1; in FBIS-SOV-94-130, 7/7/94, p. 53 (11815).

#### 7/1/94

It is reported that, to date, Ukraine has transferred 300 of its 1,600 nuclear warheads to Russia for dismantlement.

Reuter, 9/1/94 (11711).

#### 7/7/94

Secretary of Ukraine’s National Security Council Vladimir Gorbunin says that due to Ukraine’s inability to transfer its nuclear weapons to Russia by the end of 1994, “Ukraine is not ready to join the nuclear weapons Non-Proliferation Treaty this year.”

Viktor Demidenko and Mikhail Melnik, Itar-Tass

(Moscow), 9/7/94; in FBIS-SOV-94-174, 9/8/94, p. 38 (11711).

#### 7/14/94

It is reported that Vitaliy Radetsky, Ukrainian Defense Minister, ordered senior defense officers to end withdrawals of nuclear warheads to Russia on the grounds that Moscow and Washington are not fulfilling their tripartite agreement obligations.

Unian (Ukraine); in *Russia/CIS Intelligence Report*, 7/14/94 (11652).

#### 7/15/94

Valeriy Ivashchenko, Assistant to Ukraine’s Deputy Minister of Defense, denies that Defense Minister Radetsky stopped transfers of Ukrainian warheads to Russia. While Ivashchenko agrees that the U.S. and Russia are violating their tripartite obligations, he adds that only the Ukrainian Parliament has the authority to suspend the agreement.

Unian (Ukraine); in *Russia/CIS Intelligence Report*, 7/15/94 (11652).

#### Late 7/94

Konstantin Zalutin, Chairman of the State Duma Commission on the CIS and on Compatriots, criticizes the revision of the tripartite agreement. Zalutin believes that if Ukraine and Russia become strategic partners, or if Ukraine’s economic constraints become too great, then Russia could not object to a halting of Ukrainian disarmament or to Ukrainian jurisdiction over those weapons remaining on Ukrainian territory.

Interfax (Moscow), 7/30/94; in FBIS-SOV-94-147, 8/1/94, p. 32 (11581).

#### 8/94

Ukrainian Defense Minister Vitaliy Radetsky and Ashton Carter, the U.S. Assistant Secretary of Defense for International Security Policy, meet in Kiev to discuss the implementation of the tripartite agreement and START I. In an earlier interview, Radetsky complained that while Russia is meeting its obligations under the tripartite agreement — having sent 75 tons of “fuel” to Ukrainian nuclear power stations — the U.S. is not meeting its obligations.

Interfax (Moscow), 8/11/94; in FBIS-SOV-94-156, 8/12/94, p. 26 (11653). Radio Ukraine World Service (Kiev), 8/11/94; in FBIS-SOV-94-156, 8/12/94, p. 26 (11651). Interfax (Moscow), 8/11/94; in FBIS-SOV-94-156, 8/12/94, p. 26 (11653).

#### 8/94

Chairman of Ukraine’s Parliamentary Commission for Foreign Affairs Boris Oliynyk states that Kiev’s rapid nuclear disarmament “does not obviously contribute to Ukraine’s security and does not, to put it mildly, point to its growing international prestige.” Oliynyk believes that the nuclear powers are primarily concerned with the 46 modern missiles that will remain under Ukraine’s control even after current disarmament obligations are satisfied.

*Molod Ukrayiny* (Kiev), 8/26/94; in FBIS-SOV-94-168, 8/30/94, p. 34 (11659).

#### 8/94

Ukrainian President Kuchma states that Ukraine will fulfill its international obligations — including its commitment to withdraw all nuclear weapons to Russia — in accordance with the tripartite agreement.

Marta Kolomayets, *Ukrainian Weekly*, 8/7/94, p. 1 (11683).

#### 8/3/94

Vice President Al Gore notes that “as of today” Ukraine has transferred about 300 warheads to Russia. The trilateral agreement obligated Ukraine to remove only 200 warheads by 11/94.

U.S. Department Of State Dispatch, 8/15/94, p. 557 (11683).

### UKRAINE WITH UNITED KINGDOM

#### 7/22/94

It is reported that the U.K.’s Atomic Energy Authority Technology was awarded a one million pound contract from the European Commission for Chernobyl clean-up.

*European Energy Report*, 7/22/94 (11718).

### UKRAINE WITH UNITED STATES

#### 2/2/94

The U.S. Department of Energy grants approval to S3 Technologies to export training equipment used to simulate a full-scope control room to Ukraine’s Zaparozhe-1 VVER-1000 and Rovno VVER-1000 and VVER-440 reactors. Rovno will also re-

ceive personnel training education and an analytical simulator. On 1/26/94, the U.S. Department of Energy gave approval for S3 Technologies to export the same simulation equipment to the VVER-1000 South Ukraine-3 reactor.

*Nuclear Fuel*, 7/4/94, p. 14 (11572).

#### 6/94

The U.S.'s American Agency for Trade and Development and Ukraine's Zaporizhzhya nuclear power plant reach an agreement whereby Zaporizhzhya will receive \$300,000 to research the possibility of constructing a dry storage facility for spent nuclear fuel. Duke Engineering Services, the U.S. company responsible for the study will contribute \$200,000. General Director of Zaporizhzhya Volodymyr Bronnykov stated that if the study is successful, spent fuel storage will begin in 18 months.

Volodymyr Dupak, *Holos Ukrayiny* (Kiev), 6/29/94, p. 3; in FBIS-SOV-94-127, 7/1/94, p. 40 (11721).

#### 7/26/94

The U.S. Department of Energy grants approval for Westinghouse to export to Ukraine technology used in the analysis of VVER nuclear power plant safety, as well as for instrumentation and control systems for VVER plants. Westinghouse must seek DOE approval in developing future commercial ties with any Ukrainian entities, including computer code transfers, licensing agreements, and sublicensing pacts.

*NuclearFuel*, 10/10/94, p. 22 (11691).

#### 8/2/94

Ukrainian President Kuchma meets with Vice President Al Gore in Kiev to discuss economic aid, bilateral relations and the implementation of the trilateral agreement. Gore applauds Ukraine for the speed with which it has fulfilled its obligations under the agreement and encourages Ukraine to accede to the NPT. Since the 1/94 signing of the trilateral agreement, the U.S. has promised \$700 million in aid to Ukraine and the U.S. has been instrumental in securing an additional \$4 billion in assistance from the leaders of the G-7.

Marta Kolomayets, *Ukrainian Weekly*, 8/7/94, p. 1 (11683).

#### 8/2/94

According to Askold Lozynskyj, President of the Ukrainian Congress Committee of America, President Kuchma considers the U.S. to be in violation of the tripartite agreement. Only \$11 million of the promised \$350 million Nunn-Lugar funds has been delivered and, states Lozynskyj, "the actual delivery of American aid had been wasteful, incompetent, and bordering on the scandalous."

Askold Lozynskyj, *Ukrainian Weekly*, 8/2/94, p. 4 (11683).

#### 8/3/94

Lynn Davis, U.S. Undersecretary of State for Arms Control and International Security Affairs, briefs reporters on the 8/2/94 Gore-Kuchma meeting. Davis says that, provided Ukraine signs the NPT, the U.S. has pledged high technology cooperation — such as joint U.S.-Ukrainian efforts in the aerospace industry — as well as a reduction in economic and commercial barriers. Because Ukraine has shipped nearly 300 warheads to Russia for dismantlement and has deactivated over half of its 46 SS-24s, the U.S. does not believe that Kiev's hesitancy to sign the NPT is due to an interest in maintaining its nuclear arsenal; rather it appears Ukraine is trying to augment monetary aid from the U.S. President Kuchma has repeatedly noted the delays in receiving promised aid from the U.S. As outlined in the Nunn-Lugar program, Ukraine will receive \$350 million in aid: \$185 million for disarmament, \$40 million for conversion, and \$49 million for social services. In 1995, Ukraine will receive \$75 million in Nunn-Lugar aid.

Theresa Hitchens, *Defense News*, 8/8/94, p. 18 (11713). Interfax (Moscow), 8/12/94; in FBIS-SOV-94-157, 8/15/94, p. 36 (11713).

#### 8/10/94

A U.S. delegation meets with the "[Supreme Council] Commission for the Issues of Defense and State Security" in Kiev to discuss disarmament issues. The meeting focuses on the imposition of strategic material and technology controls and on the global importance of fully implementing the disarmament agreement between the U.S., Russia, and Ukraine.

Kiev Ukrayinske Radio First Program Network, 8/10/94; in FBIS-SOV-94-155, 8/11/94, p. 19 (11522).

#### 8/19/94

Ukrainian President Leonid Kuchma states that Ukraine has received only \$6 million of \$350 million in promised U.S. aid and that, with Ukraine's participation in the NPT, economic assistance may change.

Larysa Ostrolutska, *Ukrainya Moloda*, 8/19/94, pp. 4-5; in FBIS-SOV-94-166, 8/26/94, pp. 28-33 (11712).