

NUCLEAR-RELATED TRADE AND COOPERATION DEVELOPMENTS, MARCH 1995-JUNE 1995

EMERGING NUCLEAR SUPPLIER STATES

ARGENTINA

INTERNAL DEVELOPMENTS

4/24/95

During the NPT Review and Extension Conference in New York, Argentine Foreign Minister Guido Di Tella suggests an indefinite extension of the NPT and the enactment of international controls on the transport of highly radioactive material. Di Tella also requests that "special efforts be made to complete, in 1995, a treaty implementing a full ban on nuclear tests."

Telam (Buenos Aires), 4/24/95; in JPRS-TAC-95-013-L, 4/25/95 (13158).

The numbers listed in parentheses 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.

ARGENTINA WITH BRAZIL

6/5/95

Argentina and Brazil are considering integrating their nuclear power plants' fuel cycles to achieve reciprocal economic, technical, and environmental benefits. Argentina's National Commission for Atomic Energy's (CNEA) Office of Nuclear Fuel Technology and the Brazilian Institute for Nuclear and Energy Research (IPEN) will perform the initial studies to join the Argentine and Brazilian nuclear systems in order to more efficiently utilize the fuel cycle and to drastically reduce nuclear waste. Argentina's heavy water reactors (HWRs) and Brazil's light water reactors (LWRs) employ a once through fuel cycle in which spent fuel is considered waste and is not reprocessed and reused. By using a tandem cycle, an Argentine HWR could use the uranium and plutonium recovered from the spent fuel of a Brazilian LWR. The LWR spent fuel will not need to be reprocessed as much as it would for use in an LWR; the uranium and plutonium mix only needs to be separated from the other by-products. However, before it can take part in any type of cooperative agreement to utilize Brazil's spent fuel, Argentina would first have to change its current nuclear policy, which prohibits the transportation and reprocessing of nuclear fuel on the grounds that it would be "an environmental hazard and pose a temptation for international terrorists."

Clara Belaunzaran, Osvaldo Cristallini, and Domingo Quilici, *Ciencia Hoy* (Buenos Aires), Vol.

5, No. 28, 1995, pp. 59-62; in FBIS-LAT-95-107, 6/5/95 (13155). Martin F. Yriart, FBIS-LAT-95-106, 6/2/95 (13155).

BRAZIL

INTERNAL DEVELOPMENTS

3/30/95

The Brazilian Navy's project to build a nuclear submarine is "behind schedule," and may be terminated. According to Brazilian Navy Minister Admiral Mauro Pereira, about \$1 billion has already been spent on the venture.

Foreign Report, 3/30/95 (13196).

4/95

Brazil's Furnas Centrais Electricas plans to store all of the spent fuel from the 40-year lifetime of the Angra pressurized water reactor (PWR) at the plant itself. An expected 1,252 fuel assemblies are to be housed at Angra, which presently holds 203 free and 160 utilized storage racks. Furnas Centrais Electricas has opened bidding for the supply of the remaining storage racks needed, and 14 companies have submitted offers to supply them. Furnas is expected to choose a supplier by 5/95.

Nuclear Engineering International, 4/95, p. 9 (12640).

4/8/95

President of the Brazilian National Nuclear Energy Commission Esteves dos Santos dismisses a Russian Foreign Intelligence Service claim that Brazil is developing nuclear weapons.

Jane's Defence Weekly, 4/8/95, p. 5 (12641).

5/95

According to a senior official at Itamaraty (Brazil's Ministry of Foreign Affairs), Brazil will not accede to the NPT, which it considers to be a "discriminatory" treaty. Brazil supports a revision of the NPT that would include explicit disarmament responsibilities for countries possessing nuclear weapons technology. Itamaraty is basing its NPT stance upon the belief that one day Brazil will be among the "first world" states, and at that time, Brazil will not want to be restrained by pre-arranged commitments.

Nikolay Kuchin, *Novoye Vremya* (Moscow), 5/95, pp. 35-36; in JPRS-TAC-95-002, 6/15/95 (13165). *Gazeta Mercantil* (Sao Paulo), 4/18/95, p. A3; in JPRS-TAC-95-013-L, 4/18/95 (13165).

BRAZIL WITH ARGENTINA

6/5/95

Argentina and Brazil are considering integrating their nuclear power plants' fuel cycles to achieve reciprocal economic, technical, and environmental benefits. Argentina's National Commission for Atomic Energy's (CNEA) Office of Nuclear Fuel Technology and the Brazilian Institute for Nuclear and Energy Research (IPEN) will perform the initial studies to join the Argentine and Brazilian nuclear systems in order to more efficiently utilize the fuel cycle and to drastically reduce nuclear waste. Argentina's heavy water reactors (HWRs) and Brazil's light water reactors (LWRs) employ a once through fuel cycle in which spent fuel is considered waste and is not reprocessed and reused. By using a tandem cycle, an Argentine HWR could use the uranium and plutonium recovered from the spent fuel of a Brazilian LWR. The LWR spent fuel will not need to be reprocessed as much as it would for use in a LWR; the uranium and plutonium mix only needs to be separated from the other by-products. How-

ever, before it can take part in any type of cooperative agreement to utilize Brazil's spent fuel, Argentina would first have to change its current nuclear policy, which prohibits the transportation and reprocessing of nuclear fuel on the grounds that it would be "an environmental hazard and pose a temptation for international terrorists."

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BRAZIL WITH CANADA, IRAN, IRAQ, SWITZERLAND, AND UNITED STATES

4/15/95

Brazilian government representatives announce that Brazil will sue the U.S. company Nuexco for not returning 27.3 tons of yellowcake it was holding for Brazil. It is rumored that the "missing" yellowcake may have gone to Iran or Iraq via Canada. Brazil leased 275.7 tons of yellowcake to Nuexco in 4/94; when Nuexco went bankrupt in 2/94, it returned 135.5 tons and kept 112.9 tons as payment for storing the material. The remaining 27.3 tons, which are worth \$450,000, are missing. Nuexco, with Brazil's consent, had "subleased" the material to the Canadian company Cameco. Nuexco Director James Lightner maintains that all of the yellowcake was delivered to Cameco's plant in Ontario, Canada, and that Cameco may have then redistributed it. Between the yellowcake purchased by Nuexco and the missing material, Brazil is short 140.8 tons, which may lead to a shortage of fuel for the Angra-1 and Angra-2 reactors.

Raymundo Costa, Helio Contreiras, Jayme Brener, *ISTOE* (Sao Paulo), 4/26/95, pp. 102-103; in FBIS-LAT-95-082, 4/26/95 (13168). EFE (Madrid), 4/15/95; in FBIS-LAT-95-074, 4/15/95 (13168).

BRAZIL WITH CUBA, GERMANY, ITALY, RUSSIA, AND UNITED KINGDOM

5/7/95

It is reported that the Italian firm Ansaldo may participate with Brazil, Germany, Russia, and the U.K. in a joint stock company

that will complete Cuba's Juragua nuclear power station. Under the terms of a contract between the Russian Ministry of Atomic Energy and the Cuban Minister of Foreign Trade Ricardo Cabrisas, the joint stock company is to be formed by 6/95. The company will provide the \$800 million necessary to finish constructing the Juragua plant.

Aleksandr Koretskiy, *Kommersant Daily* (Moscow), 5/7/95, p. 4; in FBIS-SOV-95-105-S, 6/1/95, p. 10 (13193).

BRAZIL WITH GERMANY

6/7/95

Brazil's state-run company, Furnas Electric Power Plants Inc., is to begin accepting bids from local and foreign concerns to finish the Angra-2 power plant, begun 20 years ago under the Brazil-Germany Nuclear Agreement. Furnas has calculated that \$1.3 billion would be required to begin Angra-2's operation by 1999. Contracts for the work would be signed by 10/95 and would allow foreign companies to work only as subcontractors with Furnas' approval. Thus far, Brazil has spent \$12 billion under the Brazil-Germany Nuclear Agreement and continues to pay Germany \$500 million per year as part of the agreement. Of the \$1.3 billion needed to finish the project, 40 percent would be supplied by German banks while the rest would come from Furnas, Electrobras [Brazilian Electric Power Company, Inc.], and the state research fund Finep. Angra-2 would be the first large Brazilian government-financed project since 1990.

Jose Casado, *O Estado De Sao Paulo* (Sao Paulo), 6/4/95, p. A16; in FBIS-LAT-95-111, 6/4/95 (13163). *Nuclear Engineering International*, 6/95, p. 10 (13163).

BRAZIL WITH RUSSIA

4/95

Representatives from Russia's Ministry of Atomic Energy and Brazil's National Commission for Atomic Power discuss plans for Russia to construct low capacity nuclear reactors in remote areas of Brazil. The cooperation plan, created under the auspices of a bilateral agreement signed in the fall of

1994, also calls for exchanges in nuclear power engineering. Furthermore, Russia recommends that Brazil cooperates in ore processing and uranium exports, as well as in producing fuel for Brazilian nuclear power stations.

Veronika Romanenkova, *Itar-Tass* (Moscow), 4/7/95; in *JPRS-TAC-95-002*, 4/7/95 (12999). *Post-Soviet Nuclear & Defense Monitor*, 4/25/95, p. 13 (12713).

BRAZIL WITH UNITED STATES

4/20/95

Brazilian President Fernando Henrique Cardoso and U.S. President Bill Clinton are scheduled to hold a discussion on nuclear and space cooperation. The Clinton-Cardoso discussion is to be organized around a U.S. proposal which was received favorably by Brazil in early 4/95. The signing of a formal accord, however, is not expected in the near future.

Odaíl Figueiredo, *Agencia Estado* (Sao Paulo), 4/18/95; in *FBIS-LAT-95-075*, 4/18/95 (12720).

CUBA

See Brazil with Cuba and Russia with Cuba sections.

INTERNAL DEVELOPMENTS

3/25/95

Cuban Foreign Minister Roberto Robaina signs the Treaty of Tlatelolco, creating a nuclear-weapon-free zone in most of Latin America and the Caribbean. Cuban President Fidel Castro and Mexican Foreign Minister Jose Angel Guerra witness the signing of the treaty. Castro states that, in the past, Cuba had refrained from signing the treaty because it believed it was absurd to commit to such a treaty when the U.S., the only nuclear weapon state in the region, continued to possess and build nuclear weapons. According to Castro, Cuba has now decided to sign the treaty in order to further integrate

itself with other countries in the region. Robaina states that the U.S. illegally occupies a "part of [Cuba's] national territory," referring to the Guantanamo Naval Base, and adds, "ships with nuclear weapons travel there, a problem whose solution should, in the future, be considered as a condition for Cuba's continuing adherence to the treaty."

Reuter, 3/26/95 (12716). *El Pais*, 3/27/95 (13157). *Arms Control Today*, 4/95, p. 23 (13157).

INDIA

INTERNAL DEVELOPMENTS

3/4/95

India's Kakrapur-2 nuclear power plant, whose fuel bundles contain thorium, goes on-line. As with the first unit, Kakrapur-2 will provide Indian scientists with operating data on thorium fuel and is part of India's efforts to utilize indigenous sources of fissile material.

Nuclear Engineering International, 5/95, p. 13 (12876).

3/22/95

The Chairman of India's Atomic Energy Regulatory Board A. Gopalakrishnan says India's 1994 accession to the Convention on Nuclear Safety will open India's previously off-limits nuclear facilities to international safety inspections.

Neelam Jain, UPI, 3/22/95 (12675).

3/22/95

Former Chairman of the Indian Atomic Energy Commission Dr. P. K. Iyengar says discoveries of unconventional fissile materials make it impossible to stop the spread of nuclear weapons through the control of uranium and plutonium alone. Iyengar notes that these new materials are often produced in the same laboratories that produce isotopes for medical and other uses, called "accelerators or smaysers centers." He adds "a new discovery called atomic issomiyur...can be used as a fuel or as an explosive" and cause "massive destruction."

Dinamani (Madras), 3/22/95, p. 9; in *FBIS-NES-95-102*, 3/22/95 (12850).

4/3/95

India's opposition Bharatiya Janata Party (BJP) condemns the Indian government for what it calls indecisive policies regarding India's nuclear option. The party, which already adopted a resolution criticizing the Indian government's decision to begin negotiations on a fissile material production cut-off, says the only fissile material agreement the BJP would accept would be one which applied to the nuclear weapon states as well.

Paul Iredale, Reuter, 4/3/95 (12882).

4/5/95

It is reported that the Director of the Bhabha Atomic Research Center (BARC) A. N. Prasad says India advocates the reprocessing of plutonium as a means of making the disposal of spent nuclear fuel more efficient.

Press Trust Of India (Bombay), 4/4/95; in *Financial Express*, 4/5/95 (13137).

5/3/95

In an editorial, K. Subrahmanyam says in the future, the U.S. is likely to come to value India's nuclear weapons capability as a strategic check on China. He adds that, in the meantime, India should go along with U.S. efforts to achieve a fissile material production cut-off and should support a nuclear test ban treaty while continuing to argue for non-discriminatory treaties and developing its ability to conduct nuclear tests in laboratories. Subrahmanyam suggests India declare a no-first-use of nuclear weapons policy and advocates Indian support for an International Court of Justice opinion declaring nuclear weapons illegal.

K. Subrahmanyam, *Economic Times*, 5/3/95 (12882).

5/12/95

The Indian Foreign Ministry denounces the decision to extend the NPT indefinitely, saying "the NPT is a discriminatory treaty which creates a division between nuclear haves and have-nots."

Washington Times, 5/13/95, p. A8 (13145).

5/17/95

An editorial in the Delhi paper *Jansatta* ad-

vises India to conduct nuclear tests and officially declare itself a nuclear power.

Jansatta (Delhi), 5/17/95, p. 6; in FBIS-TAC-95-003, 5/17/95 (13140).

6/1/95

During a parliamentary question hour, Indian Minister of State for Atomic Energy Bhuvnesh Chaturedi says India has achieved self-sufficiency in the nuclear process from the mining and fabrication of nuclear fuel to the design, construction, and operation of nuclear reactors. India has also "developed self reliance on heavy water technology."

All India Radio Network (Delhi), 6/1/95; in FBIS-NES-95-106, 6/1/95 (13141). *Hindustan Times* (New Delhi), 5/30/95 (13141).

INDIA WITH IRAN

4/17/95

During Iranian President Hashemi Rafsanjani's state visit to India, Indian officials note that a 1975 India-Iran agreement lays the groundwork for future nuclear cooperation between the countries, although India recently gave in to U.S. pressure and refused to sell Iran a nuclear reactor.

Martin Walker, *Guardian*, 4/18/95 (13148).

INDIA WITH MULTI-COUNTRY GROUP

5/4/95

The South Asian Association for Regional Cooperation (SAARC) holds a conference of its member states' leaders in New Delhi, which ends with a resolution calling on the U.N. Conference on Disarmament to negotiate an international convention prohibiting the use, or threat of use, of nuclear weapons. The conference also calls for work to begin on negotiations to completely eliminate nuclear weapons within a set amount of time. At a later press conference, Indian Prime Minister P.V.N. Rao, who is also the association's chairman, says that bilateral negotiations on this matter within SAARC are not appropriate because all members are not in agreement on the issue.

All India Radio Network (Delhi), 5/4/95; in FBIS-NES-95-086, 5/4/95 (12845).

INDIA WITH PAKISTAN AND UNITED STATES

3/4/95

Despite progress in bilateral negotiations, Pakistan has made "no definitive response" to the U.S. suggestion that both Pakistan and India unilaterally declare a halt to their nuclear weapons programs. Pakistan is reluctant to respond because of India's refusal to consider the idea and its concern that India has a larger nuclear stockpile.

P.S. Suryanarayana, *Hindu*, 3/4/95, p. 14 (12670).

INDIA WITH PAKISTAN, PRC, AND UNITED STATES

3/3/95

At a conference held in Goa, India, current and former government officials and analysts from India, Pakistan, China, and the U.S. adopt by consensus a document urging all nuclear weapon states to sign an agreement pledging no-first-use of nuclear weapons and no use of nuclear weapons against non-nuclear weapon states.

Hindu, 3/5/95, p. 6 (13010).

INDIA WITH PRC

2/20/95

It is reported that the Indian Nuclear Fuel Complex at Hyderabad has begun processing Chinese-supplied low-enriched uranium for fueling of Tarapur Atomic Power Station.

Business Line (Madras), 2/20/95, p. 9; in FBIS-NES-95-038, 2/27/95 (12839).

INDIA WITH RUSSIA

3/95

It is reported that the Russian Ministry of Atomic Energy has said it will not conclude a deal to supply VVER-1000 reactors to India unless India accepts full-scope safeguards on its nuclear facilities. The Ministry's stance is based on a 1992 Presidential decree obligating countries that import Russian nuclear technology to accept

full-scope IAEA safeguards. Russian Minister of Atomic Energy Viktor Mikhailov announced in 12/94 that the two countries had reached an agreement on the supply of two VVER-1000 reactors for a plant in southern India, but the safeguards condition is likely to prevent the deal.

Nuclear News, 3/95, p. 47 (12605).

IRAN

INTERNAL DEVELOPMENTS

3/5/95

Israeli military intelligence claims that, despite severe economic difficulties, Iran could develop a nuclear capability within three years.

Foreign Report, 3/9/95 (13142).

4/20/95

Arab diplomatic sources say the U.S. cannot substantiate its claim that Iran is developing nuclear weapons.

Mark Hibbs, *Nucleonics Week*, 4/20/95, p. 10 (12676).

4/21/95

Speaking before the NPT Review and Extension Conference, Iranian Foreign Minister Ali Akbar Velayati makes a case for unrestricted and non-discriminatory transfer of nuclear technology for peaceful purposes. Iran opposes indefinite extension until inequalities between nuclear and non-nuclear weapon states are addressed. Nonetheless, according to Joseph Cirincione of the Washington-based Campaign for the Nonproliferation Treaty, Iran's position has been much less confrontational than had been expected. Velayati says the NPT "should eventually be extended indefinitely."

Barbara Crossette, *New York Times*, 4/22/95, p. A5 (12842).

IRAN WITH ARMENIA AND RUSSIA

5/95

According to *Turan*, an Armenian publication, "credible sources" say that Russia is planning to secretly transport materials via Armenia for the reactors it plans to build in Iran, using deliveries of materials to Armenia's Metsamor nuclear power station as a cover.

Turan (Baku), 5/18/95; in FBIS-SOV-95-097, 5/18/95 (12902).

IRAN WITH BELGIUM

5/95

Israel releases a document accusing 14 companies from Japan, Germany, Italy, Belgium, Switzerland, the U.K., and the U.S. of supplying Iran with dual-use technology which may be used in the production of weapons of mass destruction. Monsato is the Belgium company involved.

International Security Digest, 5/95; in Kyodo News Service, 5/2/95 (13153).

IRAN WITH BRAZIL, CANADA, IRAQ, SWITZERLAND, AND UNITED STATES

4/15/95

Brazilian government representatives announce that Brazil will sue the U.S. company Nuexco for not returning 27.3 tons of the yellowcake it was holding for Brazil. It is rumored that the "missing" yellowcake may have gone to Iran or Iraq via Canada. Brazil leased 275.7 tons of yellowcake to Nuexco in 4/94; when Nuexco went bankrupt in 2/94, it returned 135.5 tons and kept 112.9 tons as payment for storing the material. The remaining 27.3 tons, which are worth \$450,000, are missing. Nuexco, with Brazil's consent, had "subleased" the material to the Canadian company Cameco. Nuexco Director James Lightner maintains that all of the yellowcake was delivered to Cameco's plant in Ontario, Canada, and that Cameco may have then redistributed it. Between the yellowcake purchased by Nuexco and the missing material, Brazil is short 140.8 tons, which may lead to a shortage of fuel for the Angra-1 and Angra-2 reactors.

Raymundo Costa, Helio Contreiras, Jayme Brener, *ISTOE* (Sao Paulo), 4/26/95, pp. 102-103; in FBIS-LAT-95-082, 4/26/95 (13168). EFE (Madrid), 4/15/95; in FBIS-LAT-95-074, 4/15/95 (13168).

IRAN WITH FORMER SOVIET UNION, NORTH KOREA, AND PRC

5/95

Iranian exiles residing in Europe say Iran has tunneled into a mountain close to the city of Chalus on the Caspian Sea to create a clandestine nuclear weapons development site. The exiles claim Iran is employing technicians from the former Soviet Union, China, and North Korea at the site.

U.S. News & World Report, 5/1/95, p. 24 (12848).

IRAN WITH GERMANY

3/95

After "an informal exchange of views," the U.S. refuses to give its approval for German and Spanish nuclear sales to Iran.

Mark Hibbs, *Nucleonics Week*, 3/30/95, p. 10 (12890).

3/16/95

It is reported that a small number of German engineers are working in Iran's civil nuclear industry.

Intelligence Newsletter, 3/16/95, p. 7 (12772).

5/95

Israel releases a document accusing 14 companies from Japan, Germany, Italy, Switzerland, the U.K., and the U.S. of supplying Iran with dual-use technology which may be used in the production of weapons of mass destruction. Heochst is the German company involved.

International Security Digest, 5/95; in Kyodo News Service, 5/2/95 (13153).

5/13/95

Iranian Atomic Energy Organization Director Reza Amrollahi denies that Teheran's Sharif University was used as a front for the purchase of fluorine cylinders, magnetic equipment, and balancing machines from Germany in 1991.

Elaine Sciolino, *New York Times*, 5/14/95, p. 1 (12891).

IRAN WITH GREECE, ITALY, AND SLOVAKIA

1/3/95

Italian police are reported to have seized "ultra-sonic equipment for the testing of nuclear reactors," which had originated in Slovakia, passed through the Italian port of Bari, and was destined to go to Iran via Greece. On 5/13/95, Iranian Atomic Energy Organization Director Reza Amrollahi denies the story.

Elaine Sciolino, *New York Times*, 5/14/95, p. 1 (12891). Chris Hedges, *New York Times*, 3/15/95, p. A1 (12672).

IRAN WITH INDIA

4/17/95

During Iranian President Hashemi Rafsanjani's state visit to India, Indian officials note that a 1975 India-Iran agreement lays the groundwork for future nuclear cooperation between the countries, although India recently gave in to U.S. pressure and refused to sell Iran a nuclear reactor.

Martin Walker, *Guardian*, 4/18/95 (13148).

IRAN WITH ISRAEL

5/95

Israel is said to have increased intelligence gathering on the Iranian nuclear program and is reported to be considering pre-emptive strikes against Iran's nuclear reactors.

Patrick Cockburn, *Independent*, 5/22/95 (12880).

IRAN WITH ITALY

5/95

Israel releases a document accusing 14 companies from Japan, Germany, Italy, Switzerland, the U.K., and the U.S. of supplying Iran with dual-use technology which may be used in the production of weapons of mass destruction. Danieli and Uniroyal are the Italian companies involved.

International Security Digest, 5/95; in Kyodo News Service, 5/2/95 (13153).

IRAN WITH JAPAN

3/16/95

It is reported that Japanese personnel are vying for jobs in Iran's civilian nuclear sector.

Intelligence Newsletter, 3/16/95, p. 7 (12672).

5/95

Israel releases a document accusing 14 companies from Japan, Germany, Italy, Switzerland, the U.K., and the U.S. of supplying Iran with dual-use technology which may be used in the production of weapons of mass destruction. Kawasaki Heavy Industries, Sumitomo, Tomen, Nippon Steel, Nichiman Nippon, and Kobe Steel are the Japanese companies involved.

International Security Digest, 5/95; in *Kyodo News Service*, 5/2/95 (13153).

IRAN WITH MULTI-COUNTRY GROUP

3/95

Western customs and intelligence officials say a very large and complex network is smuggling weapons and advanced technology from Europe to Iran and could give the Iranians a nuclear weapons capability within five years, despite Western-imposed trade embargoes.

Chris Hedges, *New York Times*, 3/15/95, p. A1 (12672).

IRAN WITH PAKISTAN

3/15/95

Western customs and intelligence sources say that Pakistan is actively supporting Iran's smuggling efforts, often acting as a transshipper.

Chris Hedges, *New York Times*, 3/15/95, p. A1 (12672).

5/18/95

A Pakistani Foreign Office spokesman repudiates the allegation that Pakistan has assisted Iran in the nuclear field. The statement is reported to be a rebuttal to a recent article in the *Washington Post*, alleging that Pakistani Prime Minister Benazir Bhutto has ceased nuclear cooperation with Iran.

PTV Television Network (Islamabad), 5/18/95; in FBIS-TAC-95-003, 5/18/95 (12885).

IRAN WITH PAKISTAN, PRC, AND UNITED STATES

4/17/95

Pakistani Foreign Minister Sardar Asif Ahmad Ali concedes that U.S. staff are employed at Pakistan's Chakwal seismic monitoring center, which was set up primarily to observe Chinese and Iranian nuclear activities.

Khabrain (Islamabad), 4/19/95, p. 10; in FBIS-NES-95-076, 4/19/95 (13149).

IRAN WITH PAKISTAN AND SAUDI ARABIA

3/95

Prince Turki ibn Faycal, head of the Saudi secret services, holds talks with Pakistani Prime Minister Benazir Bhutto. Faycal's purpose is to convince Pakistan to halt contact with Iran on military and nuclear activities.

Intelligence Newsletter, 3/30/95, p. 7 (12887).

IRAN WITH PRC

6/7/94

Iran's Interior Minister Ali Besharati announces that a number of kidnappings occurred, with a Chinese nuclear technician and two Iranian employees of the Atomic Energy Organization (AEOI) among the victims. In a later statement, Besharati says AEOI had employed the Chinese technician to work at the Rudan uranium plant "located near the town of Fasa in the Shiraz region." According to U.S. officials, Fasa is the site of a Chinese-constructed uranium hexafluoride plant. These developments were reported in the 6/1/95 edition of *Iran Brief*.

The Iran Brief, 6/1/95, p. 11 (12881).

2/17/95

Iran informs China's CAS Institute of Plasma Physics that the HT-6B Tokamak nuclear fusion research reactor at Azad University in Tehran "achieved successful dis-

charge" with a time of approximately 20 milliseconds. The HT-6B Tokamak was transferred from the Chinese institute to Iran's Azad University under a 2/93 agreement provided two teams of Chinese scientists and engineers to Iran to help install and debug the facility. China and Iran are expected to proceed with cooperative research in nuclear fusion technology.

Cheng Yan, *Zhongguo Kexue Bao* [Chinese Science News] (Beijing), 3/8/95, p. 1; in JPRS-CST-95-006, 3/8/95 (12689).

4/10/95-4/17/95

U.S. Secretary of State Warren Christopher meets with Chinese Foreign Minister Qian Qichen and fails to convince him that China should not sell two 300 MW pressurized water reactors (PWRs) to Iran. Qian consents to further U.S.-Chinese expert-level talks on the Iranian issue, but does not say that China will cancel nuclear exports to Iran. During the week of 4/10/95, the U.S. State Department shares an intelligence report with Chinese officials that contains evidence of Iran's attempts to purchase enriched uranium in the CIS, its imports of nuclear equipment from Europe, and its use of smuggling methods similar to those of Iraq and Pakistan for a nuclear weapons program. Qian, however, states that China's nuclear cooperation is legal and "peaceful" and says that all transactions with Iran will be subject to IAEA safeguards. According to U.S. officials, the possible transfer of nuclear reactors and associated technology from China to Iran will include equipment to manufacture nuclear fuel rods. A reactor transfer from China will not include all of the necessary technology, which Iran will have to seek from other countries such as Japan and Germany. However, both Germany and Japan have agreed to withhold transfers of nuclear technology to Iran.

Elaine Sciolino, *New York Times*, 4/18/95, pp. A1, A6 (12792). R. Jeffrey Smith, *Washington Post*, 4/18/95, p. A13 (12792). Gao Jian, *Xinhua* (Beijing), 4/17/95; in FBIS-CHI-95-075, 4/18/95 (12792).

5/16/95

China finalizes a 1992 agreement to provide Iran with two 300 MW nuclear reactors. The reactors, estimated to cost \$800-900 million, are likely to be located at Darkhovin.

Foreign Report, 5/25/95 (13127). *Iran Brief*, 6/1/95, pp. 10-11 (13127).

IRAN WITH RUSSIA

3/95

Russian Ministry of Atomic Energy spokesman Georgi Kaurov says that Russia currently has 150 nuclear specialists working at a proposed reactor site in Iran and plans to send more. The Russian Ministry of Atomic Energy is also seeking to open an office in Tehran. Russian Minister of Atomic Energy Viktor Mikhailov says that the reactors Russia is planning to build in Iran are the same type as those an international consortium intends to construct in the DPRK. Kaurov claims that production of weapons-grade material from a light water reactor (LWR) is not possible. U.S. officials argue that no nuclear technology should be supplied to Iran on the grounds that it would aid Iran in becoming a "nuclear-armed terrorist state." Kaurov notes in response that many Iranian nuclear experts are trained in the U.S. Mikhailov says that if the deal with Iran is cancelled, it could lead to an Iranian withdrawal from the NPT.

Fred Hiatt, *Washington Post*, 3/3/95, p. A30 (12914).
Wall Street Journal, 3/2/95, p. A10 (12618).

3/14/95

It is reported that Mitch McConnell, Chairman of the U.S. Senate Foreign Operations Appropriations Subcommittee, said that current U.S. laws require the suspension of all aid to Russia if the Russian-Iranian deal continues as planned. James Collins, U.S. Ambassador-at-Large to the post-Soviet states, declared that existing U.S. laws require a cessation of aid only if Russia transfers nuclear weapons technology to Iran.

Post-Soviet Nuclear & Defense Monitor, 3/14/95, p. 2 (12750).

3/18/95

It is reported that Yuri Kotov, head of the Russian Foreign Ministry department that deals with Iran, says that Russia does not plan to concede to U.S. pressure and will go ahead with the \$1 billion nuclear reactor agreement with Iran.

Washington Times, 3/18/95, p. A6 (12619).

3/22/95-3/23/95

Russian Foreign Minister Andrei Kozyrev and U.S. Secretary of State Warren Chris-

topher meet in Geneva to discuss U.S. opposition to the pending Russian sale of two LWRs to Iran. The only agreement reached during the meetings is a decision to meet again before Presidents Yeltsin and Clinton meet on 5/9/95 in Moscow. At a Geneva press conference, Yevgeniy Primakov, head of Russia's External Intelligence Service, distributes a 1993 report written by his organization that said that even if Iran were given sufficient funding and technical assistance, it would take a minimum of 10 years for Iran to build a nuclear bomb.

John J. Schulz, *Arms Control Today*, 4/95, p. 20 (12633). UPI, 3/23/95; in *Executive News Service*, 3/23/95 (13004). UPI (Moscow), 3/23/95; in *Executive News Service*, 3/23/95 (12667).

3/23/95

Lieutenant-General Gennady Yevstafyev, a senior official of the Russian Foreign Intelligence Service (FIS), affirms that Russia will proceed with the Iranian nuclear reactor sale because FIS officials "have no grounds for changing [Russia's] assessment vis-a-vis Iran."

Reuter (Moscow), 3/23/95; in *Executive News Service*, 3/23/95 (12619).

4/2/95

The U.S. shares intelligence information on Iran with Russia that shows Iran is importing equipment necessary for nuclear weapons production, has attempted to procure enriched uranium from Kazakhstan and nuclear components from Germany, and is employing techniques and using smuggling routes similar to those used by Iraq and Pakistan. The Clinton administration is offering Russia nuclear cooperation projects worth "at least tens of millions of dollars" to entice Russia to cancel the reactor deal with Iran. The U.S. has also indicated to Russian officials that Russia may be able to play a larger role in the construction of the two LWRs for North Korea under the U.S.-DPRK Agreed Framework.

Reuter, 4/2/95; in *Executive News Service*, 4/3/95 (13003). Martin Fletcher, *Times*, 4/4/95 (12991).

4/3/95

Russian Prime Minister Viktor Chernomyrdin rejects a plea by U.S. Defense Secretary William Perry to cancel the Russian-Iranian nuclear contract. Chern-

omyrdin says that Russia is "fully aware of the [U.S.'s] misgivings" and that the nuclear deal would not violate the NPT. Perry says that Russia and the U.S. will continue talks on safeguarding spent fuel from the reactors. Russia has asked the IAEA to tighten control over implementation of the contract.

Martin Fletcher, *Times*, 4/4/95 (12991). Voice of Russia World Service (Moscow), 5/4/95; in FBIS-SOV-95-066, 4/5/95 (12991).

4/5/95

It is reported that Viktor Chernomyrdin said that Russia would not, under any circumstances, terminate the \$1 billion deal with Iran. The contract with Iran will reportedly bring Russia \$1 billion from the sale of a one reactor, and \$8 billion from subsequent sales.

Stanislav Kucher, *Komsomolskaya Pravda* (Moscow), 4/5/95, p. 7; in FBIS-SOV-95-065, 4/5/95 (12619).

4/5/95

Russia has not yet decided whether it will build a waste burial site in Iran or reprocess the spent fuel from the reactor it will build in Iran at Krasnoyarsk. Another source reports that spent fuel would be reprocessed in Russia and waste products would then be returned to Iran for burial. The Gore-Chernomyrdin Commission is expected to address the spent fuel management issue.

Galina Penenkova, Voice of America World Service (Moscow), 4/5/95; in FBIS-SOV-95-066, 4/5/95 (12663). Veronika Romanenkova, Itar-Tass (Moscow), 4/5/95; in FBIS-SOV-95-066, 4/5/95 (12663). Gennadiy Yezhov and Andrey Serov, Itar-Tass (Moscow), 5/11/95; in FBIS-SOV-95-091, 5/11/95 (12663).

4/10/95

U.S. President Bill Clinton signs into law a bill that makes further Russian access to U.S. nuclear technology conditional on the cancellation of the Russian-Iranian nuclear reactor deal.

Post-Soviet Nuclear & Defense Monitor, 4/25/95, p. 4 (12740).

4/12/95

In an article in *Izvestiya*, Aleksei Yablokov, chairman of the Russian Security Council's Interdepartmental Commission for Environmental Safety, states that the 1/8/95 Russian-Iranian protocol on the completion of Iran's

Bushehr nuclear power plant also includes provisions for the supply of a 30-50 MW light water reactor (LWR) for research, additional research reactors, training of Iranian nuclear specialists, assistance in developing uranium deposits, and construction of a gas centrifuge uranium enrichment facility. Under the terms of the protocol, signed by Russian Minister of Atomic Energy Viktor Mikhailov and President of the Iranian Atomic Energy Organization Reza Amrollahi and published in 7/95, the two countries will prepare and sign an agreement within three months on the supply of the 30-50 MW LWR. They will also, during the first quarter of 1995, sign agreements on training 10-20 Iranian specialists annually and on the delivery of 2,000 MT of Russian natural uranium. Upon completion of the latter agreement, talks will begin on the construction of the uranium enrichment plant. In addition, the two countries stated their intention to prepare and sign an agreement within six months on the establishment of a uranium mine in Iran. According to Yablokov, officials in a number of ministries were not consulted prior to the signing of the protocol and, consequently, questions on the wisdom of cooperating in Iranian nuclear development were never raised.

Aleksei Yablokov, *Izvestiya* (Moscow), 4/12/95, p. 3 (13088). *Izvestiya* (Moscow), 6/2/95, p. 3 (13088). *Yaderniy Kontrol* (Moscow), 7/95, pp. 14-15.

4/14/95

Vyacheslav Sychev of the Russian Ministry of Atomic Energy says that Russia will meet its contractual obligation to supply Iran with nuclear power reactors. Under the terms of the Russian-Iranian agreement, spent fuel from the reactors will be sent to Russia for processing and then returned to Iran for burial. Sychev says that the U.S. offered Russia the opportunity to process waste from the LWRs to be constructed in the DPRK as compensation if it cancels its nuclear deal with Iran. However, Russia rejected the offer on the grounds that it was insufficient compensation.

Anatoliy Yurkin, *Itar-Tass* (Moscow), 4/14/95; in FBIS-SOV-95-073, 4/14/95 (12994).

4/19/95

Russian Foreign Trade Minister Oleg Davydov says that, although the nuclear reactor deal between Russia and Iran is "in the stage of final specification," it will not be signed until at least 9/95 or 10/95.

Andrey Surzhanskiy, *Itar-Tass* (Moscow), 4/19/95; in FBIS-SOV-95-075, 4/19/95 (12915).

4/25/95

It is reported that the Clinton administration said that the Russia-Iran nuclear deal could jeopardize the 22-year old Peaceful Use of Atomic Energy agreement between the U.S. and Russia that provides for cooperation in nuclear-related research among scientists and engineers. If Russia follows through on its deal with Iran, the U.S. has stated that it will not sign the Section 123 Agreement that is aimed at modernizing Russia's aging commercial reactor industry with U.S. exports of advanced nuclear reactor technology, restricted data, and fuel.

Post-Soviet Nuclear & Defense Monitor, 4/25/95, pp. 1-2 (13078).

4/28/95

Russian Foreign Minister Andrei Kozyrev says that it would be safer to allow the proposed Russian-Iranian nuclear reactor deal to be implemented than to risk the possibility that Iran will seek nuclear technology from another source. Kozyrev reiterated Russia's commitment not to assist Iran in manufacturing nuclear weapons.

Itar-Tass (Moscow), 4/28/95; in FBIS-SOV-95-083, 4/28/95 (12660). Gennadiy Yezhov and Andrei Serov, *Itar-Tass* (Moscow), 5/11/95; in FBIS-SOV-95-091, 5/11/95 (12660).

4/28/95

Senior U.S. officials confirm that in 1/95, Russian Minister of Atomic Energy Viktor Mikhailov agreed to provide Iran with a gas centrifuge. The officials were alerted to the deal by a 4/12/95 *Izvestiya* article by Aleksei Yablokov, chairman of the Russian Security Council's Interdepartmental Commission for Environmental Safety. A number of U.S. officials say several sources had confirmed Yablokov's report. U.S. foreign aid legislation requires that aid to Russia be suspended if Moscow sells Iran equipment that can be used for nuclear weapons production. In discussions with U.S. Secretary of State

Warren Christopher, Russian Foreign Minister Andrei Kozyrev says that many senior Russian officials, including himself, were unaware that an agreement had been made to provide centrifuges. Kozyrev suggests that Mikhailov may have acted independently in making the deal, and that the terms might still be changed by the Kremlin.

Steven Greenhouse, *New York Times*, 4/29/95, p. 5 (12968). R. Jeffrey Smith and Michael Dobbs, *Washington Post*, 4/29/95, p. A8 (12668).

4/30/95

U.S. President Bill Clinton imposes a trade embargo against Iran as a demonstration of U.S. determination to prevent Iran from acquiring nuclear weapons and to persuade Russia to cancel the reactor deal.

Xinhua (Beijing), 5/2/95; in FBIS-CHI-95-084, 5/2/95 (12664).

5/1/95

U.S. Secretary of State Warren Christopher claims Iran has acquired plutonium reprocessing equipment from Russia.

The Iran Brief, 6/1/95, p. 11 (12881).

5/4/95

Russia's First Deputy Minister of Atomic Energy Lev Ryabev says Russia has no plans to supply Iran with gas centrifuges or dual-use military equipment. An unidentified senior member of the Russian Foreign Ministry says that Russia may "introduce additional measures of control over the construction of the nuclear power plant" in Iran in an effort to appease U.S. concerns and quiet international public opinion. Ryabev says that no final agreement has been reached on whether Russia would be training Iranian nuclear experts. Ryabev says that only preparatory work is currently underway at the plant site and that construction has not yet begun.

Interfax (Moscow), 5/4/95; in FBIS-SOV-95-087, 5/4/95 (12960). Interfax (Moscow), 5/4/95; in FBIS-SOV-95-087, 5/4/95 (12958).

5/4/95

Vladimir Loborev, a member of the Russian Academy of Natural Sciences, says that the nuclear waste from the LWRs to be supplied to Iran cannot be reprocessed into weapons-grade material in Iran because Iran lacks the necessary scientific and engineering capa-

bilities. Georgi Kaurov, official spokesman for the Russian Ministry of Atomic Energy, says that according to the agreement Russia will process nuclear waste from the Bushehr reactors and then ship it back to Iran in glass-encapsulated containers for disposal underground. According to Kaurov, Iran would not be able to use the glass-encapsulated nuclear waste for nuclear weapons production.

Anatoliy Yurkin, *Itar-Tass* (Moscow), 5/4/95; FBIS-SOV-95-086, 5/4/95 (12957).

5/4/95

Mohammed Sadegh Ayatollahi, a senior official from Iran's NPT Review and Extension Conference delegation, says that Iran is not interested in storing spent fuel from its Russian-supplied reactors. Ayatollahi says that the spent fuel would be sent back to Russia. Ayatollahi denies that the Russia-Iran deal includes a provision for the supply of a gas centrifuge.

Evelyn Leopold, *Reuter*, 5/4/95; in *Executive News Service*, 5/4/95 (12959). Steven Greenhouse, *New York Times*, 5/5/95, p. A4 (12840).

5/4/95

Yuriy Perekyostov, a representative from Russia's nuclear power plant construction conglomerate Zarubezhatomenergostroi, says that his company is working on a feasibility study for the completion of the nuclear power plant at Bushehr. The study will be completed by 9/95. Russia has reached a preliminary agreement with Ukraine's Turboatom to supply Bushehr with a new turbine. Bushehr's reactor will be built by Izhorskiy or Atom mash.

Interfax (Moscow), 5/4/95; in FBIS-SOV-95-086, 5/4/95 (12956).

5/5/95

It is reported that Russian Ministry of Atomic Energy spokesman Georgi Kaurov said that Russia's agreement with Iran on the construction of a nuclear power plant does not include the installation or transfer of centrifuge technology. Kaurov said, however, that the transfer of enrichment technology is consistent with NPT guidelines as long as Iran "takes responsibility not to produce [nuclear] weapons and the IAEA guarantees all Iranian technology." The protocol to the agreement specifies that Russia will provide train-

ing for 100 Iranian specialists.

Informatsionnoye Agentstvo Ekho Moskvyy (Moscow), 5/5/95; in FBIS-SOV-95-088, 5/5/95 (13041).

5/5/95

It is reported that Russian Ministry of Atomic Energy spokesman Georgi Kaurov said that Russia plans to negotiate new contracts with Iran, within the framework of the existing 8/25/92 contract, to construct one additional VVER-1000 and two VVER-440 reactors at Bushehr. Adding three more reactors increases the value of the deal from \$800 million to \$2 billion. Kaurov also mentioned the existence of a Russian-Iranian "understanding in principle" to train Iranian nuclear personnel in Russia, but says the understanding was verbal and had not yet been committed to paper. Kaurov said 180 Russian nuclear technicians are working at the site.

Interfax (Moscow), 5/5/95; in FBIS-SOV-95-088, 5/5/95 (13086).

5/8/95-5/9/95

During a meeting with Russian President Boris Yeltsin, U.S. President Bill Clinton provides Yeltsin with a five-page U.S. intelligence report claiming that Iran has "an organized structure whose purpose is the production of nuclear material for nuclear weapons." Clinton tells Yeltsin that Iran is pursuing nuclear weapons in accordance with a "nuclear weapons acquisition blueprint" drafted four years ago with the help of Pakistani officials. The report details Iran's acquisition strategy, claiming that it mirrors Pakistan's "successful campaign" to purchase, piece by piece, nuclear technology and materials from Western and Asian sources over an eight-year period. The report says that Iran has been attempting to develop a nuclear weapon with the help of China and Pakistan. Clinton also shares with Yeltsin "sensitive details" of Iranian contacts with the same foreign companies that provided Pakistan with the equipment necessary for the development of nuclear weapons components. The report, which was based on human and signals intelligence, does not include satellite imagery or other physical evidence. Yeltsin does not question the content of the report. During the meeting, Yeltsin says Russia will not transfer technology to Iran that could be used for

nuclear weapons production. However, Yeltsin says Russia retains the right to train Iranian nuclear specialists in Moscow and to supply Iran with a power reactor.

J. Jennings Moss, *Washington Times*, 5/11/95, pp. A1, A20 (12997). Jim Hoagland, *Washington Post*, 5/17/95; in *Executive News Service*, 5/17/95 (13075).

5/10/95

U.S. President Bill Clinton and Russian President Boris Yeltsin hold a joint press conference in Moscow concerning the Russian-Iranian nuclear cooperation agreement. Clinton indicates that the deal is legal but should not be carried out. Clinton also says that Yeltsin agreed to take the U.S.'s position into account despite potential financial losses, and suggests the Gore-Chernomyrdin Commission as the proper forum for continuing discussions on the technological aspects of the issue. Yeltsin underscores the international legality of the deal, but concedes that the deal has military as well as civilian applications. Yeltsin announces that Russia has agreed to suspend the military elements of the contract so that "only the civilian power station with [LWRs] remains."

Russian Public Television First Channel Network (Moscow), 5/10/95; in FBIS-SOV-95-090, 5/10/95 (13087).

5/10/95

Russian Ambassador to the U.S. Yuliy Vorontsov says that Russia will most likely cancel the shipment of gas centrifuge equipment as well as the training of Iranian nuclear physicists. Vorontsov says that the nuclear training and transfer of centrifuge equipment have possible military consequences which run counter to Russian policy. Vorontsov says that the inclusion of these elements in the Russian-Iranian agreement was the work of the Russian Ministry of Atomic Energy and was never authorized by Moscow. With the training and centrifuge components of the agreement excluded, the agreement is worth only half of its original cost of \$1 billion.

Interfax (Moscow), 5/10/95; in JPRS-TAC-95-002, 5/10/95 (12966).

5/11/95

Russian Ministry of Atomic Energy spokesman Georgi Kaurov says that Russia never had any intention of supplying Iran with gas centrifuges, and that the contract for the completion of the reactors at Bushehr never included any provision for centrifuges. Mikhail Kokeev, deputy department head in the Russian Foreign Ministry, says that Russia "did not, does not, and will not support programs that will bring Iran to another military level." Kokeev says, however, that departments in several Russian ministries have entertained the possibility of exporting dual-use technologies to Iran.

Michael Mihalka, *OMRI Daily Digest*, 5/12/95 (12912).

5/11/95

Russian Minister of Atomic Energy Viktor Mikhailov says that although the current Russian-Iranian agreement does not provide for the supply of a centrifuge to Iran, Russia may build a centrifuge in Iran sometime in the future.

Gennadiy Yezhov and Andrey Serov, *Itar-Tass* (Moscow), 5/11/95; in FBIS-SOV-95-091, 5/11/95 (12663).

5/11/95

First Deputy Speaker of Russia's State Duma Mikhail Mityukov tells Iranian Ambassador to Russia Mehdi Safari that "no changes would be made in the text of the Iranian-Russian nuclear cooperation agreement." Mityukov emphasizes that the Russian Parliament supports the nuclear deal. Apparently, Iranian Deputy Majlis Speaker Hasan Ruhani plans a trip to Moscow to hold discussions on the nuclear agreement.

Irna (Tehran), 5/12/95; in FBIS-SOV-95-093, 5/12/95 (12955).

5/16/95

A report on the condition of the Iranian nuclear power complex under construction at Bushehr estimates that 150 Russian specialists are now working on the project. Iranian sources say that 500 workers will eventually be involved, but Russian sources say the number will be 3,000.

Elaine Sciolino, *New York Times*, 5/19/95, p. A1 (13084).

5/16/95

At a closed-door meeting of the Russian State Duma, Foreign Minister Andrei Kozyrev says that no final decision on the Russian-Iranian nuclear deal will be made until the Gore-Chernomyrdin Commission concludes its meetings by 6/7/95. Kozyrev's statement appears to contradict Russian Minister of Atomic Energy Viktor Mikhailov's 5/12/95 statement that Russia is moving forward in implementing the reactor deal with Iran. According to an anonymous Russian Duma member present at the closed Duma hearings, Kozyrev asserts that Mikhailov concluded a separate agreement with Iran, which was unknown to President Yeltsin, to provide a gas centrifuge.

Georgiy Bovt, *Kommersant Daily* (Moscow), 5/18/95; in FBIS-SOV-95-096, 5/18/95 (12954).

5/18/95

A senior Russian Foreign Ministry official says that Russia had never signed a centrifuge deal with Iran, and that if such a contract did exist, it would be cancelled by the Russian government as a violation of the 1992 Russian-Iranian nuclear cooperation agreement. Although the official says that Russian Minister of Atomic Energy Viktor Mikhailov had the legal right to sign the 1/95 protocol on the centrifuges, he adds that the minister had displayed some "initiative," since the centrifuge deal would have violated the 1992 accord on cooperation with Iran. The article notes that "Mikhailov was unauthorized to take that step."

Michael Mihalka, *OMRI Daily Digest*, 5/19/95 (12662).

5/18/95

It is reported that Yuriy Vishnevskiy, chief of the Russia State Committee for Nuclear Materials Oversight, says that Russia's Ministry of Atomic Energy will go ahead with its plan to sell gas centrifuges to Iran.

Turan (Baku), 5/18/95; in FBIS-SOV-95-097, 5/18/95 (12902).

5/22/95

Russian Minister of Atomic Energy Viktor Mikhailov says that Russia will go ahead with its plan to build a 40 MW research LWR in Iran once a contract is signed later in 1995. Mikhailov rejects criticism from the West of Russia's intention to train approximately

20-40 Iranian nuclear experts. Mikhailov says that no final decision has been made on the transfer of gas centrifuges to Iran. Mikhailov also says that agreements for the training of Iranian nuclear specialists in Russia, and for the delivery of gas centrifuges have not been finalized.

Michael Mihalka, *OMRI Daily Digest*, 5/23/95 (12913). *Interfax* (Moscow), 5/22/95; in FBIS-SOV-95-098, 5/22/95 (12998).

6/1/95

It is reported that close associates of former Iranian President Bani Sadr said that Revolutionary Guards General Sardar Shafagh disappeared while in Moscow for nuclear contract negotiations with the Russian Ministry of Atomic Energy and may have defected to the U.S. Shafagh may have been in possession of documents allowing the U.S. to examine military aspects of Iran's nuclear contracts with Russia, as well as the progress of Iran's uranium enrichment efforts.

Iran Brief, 6/1/95, p. 11 (12883).

6/9/95

Russian Minister of Atomic Energy Viktor Mikhailov says nuclear cooperation between Russia and Iran would actually help to prevent Iran from pursuing nuclear weapons. Mikhailov says that Russia will continue to "make good on [its] agreement [to build the] nuclear power plant in Iran."

Reuters, 6/9/95; in Executive News Service, 6/13/95 (13079).

IRAN WITH RUSSIA AND UKRAINE

5/4/95

It is reported that Russia has reached a preliminary agreement with Ukraine's Turboatom to supply Bushehr with a new turbine. Bushehr's reactor will be built in Russia by Izhorskiy or Atom mash.

Interfax (Moscow), 5/4/95; in FBIS-SOV-95-086, 5/4/95 (12956).

IRAN WITH SOUTH AFRICA

3/95

U.S. officials maintain that nuclear cooperation was discussed when South African En-

ergy Minister Pik Botha led a delegation to Tehran in 3/95, although intelligence sources indicate that South Africa has not given Iran any nuclear technology or information.

Sunday Times, 4/23/95 (13159).

IRAN WITH SPAIN

3/95

After "an informal exchange of views," the U.S. refuses to give its approval to German and Spanish nuclear sales to Iran. Spain is said to be "still actively considering" dealing with Iran.

Mark Hibbs, *Nucleonics Week*, 3/30/95, p. 10 (12890).

IRAN WITH SWITZERLAND

5/95

Israel releases a document accusing 14 companies from Japan, Germany, Italy, Switzerland, the U.K., and the U.S. of supplying Iran with dual-use technology which may be used in the production of weapons of mass destruction. Sandoz is the Swiss company involved.

International Security Digest, 5/95; in *Kyodo News Service*, 5/2/95 (13153).

IRAN WITH SYRIA

3/15/95

Western customs and intelligence sources say that Syria is actively supporting Iran's smuggling efforts, often acting as a transshipper.

Chris Hedges, *New York Times*, 3/15/95, p. A1 (12672).

IRAN WITH UNITED KINGDOM

5/95

Israel releases a document accusing 14 companies from Japan, Germany, Italy, Switzerland, the U.K., and the U.S. of supplying Iran with dual-use technology which may be used in the production of weapons of mass destruction. Shering Drug and MW Kellogg [MW Kellogg is a British subsidiary of the

U.S. firm, Dresser] are the British companies involved.

International Security Digest, 5/95; in *Kyodo News Service*, 5/2/95 (13153).

IRAN WITH UNITED STATES

3/16/95

In testimony before the U.S. Senate's Banking Committee, the Commerce Department's chief export control agent, Bill Reinsch, refutes Kenneth Timmerman's charge that "dangerous dual-use technologies" are reaching Iran from the U.S. "on virtually a daily basis."

Export Control News, 3/31/95, p. 7 (12673).

4/30/95

Addressing the World Jewish Congress, President Clinton announces he will ban all U.S. trade with Iran, including purchases of Iranian oil by U.S. firms, in order to "curb Iran's drive to acquire devastating weapons and support for terrorist activities."

Ann Devroy, *Washington Post*, 5/1/95, p. A1 (12671).

5/95

Israel releases a document accusing 14 companies from Japan, Germany, Italy, Switzerland, the U.K., and the U.S. of supplying Iran with dual-use technology which may be used in the production of weapons of mass destruction. Ciba Geigy is the U.S. company involved.

International Security Digest, 5/95; in *Kyodo News Service*, 5/2/95 (13153).

IRAQ

INTERNAL DEVELOPMENTS

4/2/95

The *Sunday Times* of London reports that Khidir Abdul Abas Hamza, an Iraqi nuclear expert who fled Iraq in 8/94, was kidnapped on 2/27/95 from Athens shortly after a brief contact with the *Times* and subsequently

killed. Khidir allegedly smuggled out 50 pages of documents relating to Iraqi nuclear programs, and faxed two pages, as well as a two-page summary of their contents, to the *Times*. The papers, dated 5/94, reportedly suggest that Iraq was continuing work on a clandestine nuclear weapons program and that "orders were given to hide materials in the nuclear project" before a 1994 U.N. inspection. They describe the "Rafidayn Project," a program to develop a computerized process for designing nuclear weapons. Khidir's wife, who informed the *Times* of Khidir's kidnapping and murder, said she had destroyed the set of documents. According to *NuclearFuel*, it has not been confirmed that Khidir is the actual author of the documents; however, it has been verified that Khidir worked on electromagnetic isotope separation in Iraq's clandestine PC-3 nuclear weapons program. IAEA spokesman David Kyd says the documents had the "ring of authenticity," while Iraqi Ambassador to Greece Issam Saud Khalil calls them "fabricated and ludicrous."

Jon Swain, *Sunday Times* (London), 4/2/95, p. 16 (13210). Mark Hibbs, *NuclearFuel*, 4/24/95, p. 16 (12841). Jon Swain, *Sunday Times* (London), 4/9/95 (12841).

4/7/95

U.S. Ambassador to the U.N. Madeleine Albright cites documents obtained by the *Sunday Times* as proof of Iraq's continuing determination to acquire nuclear weapons. A copy of Albright's speech to the American Society for International Law says, "The London *Sunday Times* is in possession of documents that appear to be genuine and indicate Iraq is pursuing a nuclear weapons program."

Reuter, 4/7/95; in *Executive News Service*, 4/7/95 (12841).

4/13/95

In reference to the documents received by the *Sunday Times*, IAEA Deputy Director General Maurizio Zifferero says, "There are some inconsistencies in the documents which lead to a suspicion of forgery, but it is, of course, much too premature" to speculate. However, Zifferero says the IAEA would be likely to know if Iraq were carrying out a "sizeable" program for designing nuclear weapons. Also on 4/13/95, Zifferero

is quoted by the Republic of Iraq Radio Network as saying, "The published documents are only two. The first document consists of two lines, while the second consists of 20 lines. The documents, which give no details on nuclear issues, are false."

Jon Swain, *Sunday Times* (London), 4/9/95 (12841).
Reuter, 4/13/95 (12841). Republic of Iraq Radio Network (Baghdad), 4/13/95 (13210).

6/19/95

It is reported that the IAEA is still investigating allegations published by the *Sunday Times* that Iraq was attempting to build a computer model for designing a nuclear weapon.

J. Gralla, Reuter, 6/19/95; in Executive News Service, 6/19/95 (13210).

IRAQ WITH BRAZIL, CANADA, IRAN, SWITZERLAND, AND UNITED STATES

4/15/95

Brazilian government representatives announce that Brazil will sue the U.S. company Nuexco for not returning 27.3 tons of the yellowcake it was holding for Brazil. It is rumored that the "missing" yellowcake may have gone to Iran or Iraq via Canada. Brazil leased 275.7 tons of yellowcake to Nuexco in 4/94; when Nuexco went bankrupt in 2/94, it returned 135.5 tons and kept 112.9 tons as payment for storing the material. The remaining 27.3 tons, which are worth \$450,000, are missing. Nuexco, with Brazil's consent, had "subleased" the material to the Canadian company Cameco. Nuexco Director James Lightner maintains that all of the yellowcake was delivered to Cameco's plant in Ontario, Canada, and that Cameco may have then redistributed it. Between the yellowcake purchased by Nuexco and the missing material, Brazil is short 140.8 tons, which may lead to a shortage of fuel for the Angra-1 and Angra-2 reactors.

Raymundo Costa, Helio Contreiras, Jayme Brener, *ISTOE* (Sao Paulo), 4/26/95, pp. 102-103; in FBIS-LAT-95-082, 4/26/95 (13168). EFE (Madrid), 4/15/95; in FBIS-LAT-95-074, 4/15/95 (13168).

IRAQ WITH CYPRUS, GERMANY, NETHERLANDS, RUSSIA, UKRAINE, AND UNITED STATES

6/8/95

U.S. Customs Service Agents arrest three New York residents, Demetrios Demetrios, Rains Kourtides, and Constantin Zahariadis, for attempting to ship seven tons of Ukrainian-origin zirconium to Iraq via Germany and the U.S. Of the seven tons, two were seized in Cyprus and had been destined to go to Iraq via Amsterdam. Another source reports that eight tons were seized. According to Customs Service special agent Robert Van Etten, the U.S. government believes the zirconium was stolen from strategic reserves in the former Soviet Union. On 6/12/95, Ukrainian Foreign Ministry spokesman Yuri Serheyev says that the zirconium originated in Russia, not Ukraine. Director General of the Pridneprovsakiy Chemical Plant in Dneprodzerzhinsk Yuri Korovin characterizes a Russian report citing Ukraine as the source of the zirconium as "misinformation" aimed at barring Ukrainian exports from foreign markets. Korovin says that the plant, which "holds a monopoly on the production of this highly-refined nuclear material," discontinued zirconium production in 1994.

Grant McCool, *Washington Post*, 6/9/95, p. A16 (12975). Halia Pavlina, Intelnews (Kiev), 6/12/95; in FBIS-SOV-95-113, 6/12/95 (12975). Radio Ukraine World Service (Kiev), 6/13/95; in FBIS-SOV-95-114, 6/13/95 (12975). *New York Times*, 6/9/95, p. 1 (13207). *al-Quds al-Arabi*, 6/9/95, p. 1; in FBIS-NES-95-121, 6/9/95 (13217).

IRAQ WITH LIBYA, NORTH KOREA, AND UKRAINE

4/95

It is reported that Valeriy Andreyev, head of the Ukrainian Strategic Missile Force's Military Counterintelligence Main Department, said several countries, including Iraq, Libya, and North Korea are prepared to hire Ukrainian nuclear specialists. Andreyev said his department's task of preventing the leakage of Ukrainian technology and strategic secrets is being complicated by the reduction of strategic forces; experts must now seek employment elsewhere and may be

looking abroad. Currently, there are no laws forbidding Ukrainian specialists from seeking employment at a foreign nuclear facility.

Viktor Melnyk, *Molod Ukrayiny* (Kiev), 4/13/95, p. 2; in FBIS-SOV-95-073, 4/13/95 (12996).

IRAQ WITH PRC

4/19/95

Israeli Labor Party Secretary-General Nisim Zvili states that during a meeting in Beijing, he and Knesset member Ori Or failed to convince the Chinese President to terminate a deal to provide nuclear power plants to Iraq. [It is likely that the reference to the PRC-Iraq nuclear power plant sale is actually the PRC-Iran power reactor deal.]

Qol Yisra'el (Jerusalem), 4/19/95; in FBIS-NES-95-076, 4/19/95 (13227).

IRAQ WITH UNITED NATIONS

5/95

It is reported that according to U.S. State Department officials, the complete easing or lifting of the U.N. embargo against Iraq would allow Iraq to close down the U.N.'s operation on monitoring Iraq's weapons-of-mass-destruction programs. Additionally, U.S. officials claim that if Iraq restarts its nuclear weapons program, the program would become operational in five years.

Nuclear Engineering International, 5/95, p. 12 (13205).

6/9/95

It is reported that Iraq may stop cooperating with the head of the UNSCOM mission Rolf Ekeus. According to Iraqi sources, Ekeus may not be allowed reentry into Iraq.

al-Quds al-Arabi (Jerusalem), 6/9/95, p. 1; in FBIS-NES-95-121, 6/9/95 (13217).

ISRAEL

INTERNAL DEVELOPMENTS

5/95

Israeli Energy Minister Gonen Segev indicates Israel will not accede to a Fissile Material Cut-off Treaty, saying "even if Iran signs the NPT, we know how this signature will change the situation in Iran" [Iran is in fact a signatory to the treaty]. According to senior Israeli political sources, Israel does not intend to enter into bilateral negotiations on a treaty, as proposed by the U.S. The U.S. subsequently informs Israel that it will not be pressured to limit or curtail its production of fissile materials and that its proposal for a Cut-off Treaty is intended only as a long-term solution.

Ha'aretz (Tel Aviv), 5/21/95, p. A1; in FBIS-TAC-95-003, 5/21/95 (13211).

5/95

Mordechai Vanunu, the Israeli technician who has served almost half of an 18-year prison sentence for revealing the existence of a clandestine Israeli nuclear program, asks for clemency.

Peter Hounam, *Sunday Times* (London), 6/4/95 (13214).

5/16/95

Israeli journalists and academics hold an open conference on the secrecy surrounding Israel's nuclear weapons program. Though the conference organizer Haifa University extended invitations to senior government officials, including a spokesman for the Israeli Atomic Energy Commission, they declined to attend. Nonetheless, the conference is reported to have proceeded without military censorship. Haifa University lecturer Yoel Cohen, says "I do not think this policy of blanket secrecy is helping in a democracy. There is a strong need for parliamentary accountability."

Christopher Walker, *Times* (London), 5/17/95 (13226).

6/21/95

A bill which would have made an Israeli decision to accede to the NPT contingent upon the support of at least 90 Knesset members is defeated. The vote tally was 16 for and 19 against. In his written clarification, the bill's author, Knesset member Moshe Peled, said the bill was intended to prevent the possibility of accession.

DAVAR (Tel Aviv), 6/22/95; in FBIS-NES-95-120, 6/22/95 (13218).

ISRAEL WITH IRAN

5/95

Israel is said to have increased intelligence gathering on the Iranian nuclear program and is reported to be considering pre-emptive strikes against Iran's nuclear reactors.

Patrick Cockburn, *Independent*, 5/22/95 (12880).

ISRAEL WITH SYRIA

5/30/95

Israeli political sources express concern that Syria may press for Israel's nuclear weapons capability and its refusal to accede to the NPT to be included on the agenda of security talks scheduled to commence in 6/95.

Ma'ariv (Tel Aviv), 5/31/95; in FBIS-NES-95-104, 5/31/95 (13215).

JAPAN

INTERNAL DEVELOPMENTS

3/1/95

The Japan Atomic Energy Research Institute (JAERI) announces that a new uranium extraction process utilizing carbon-dioxide "in the super critical phase" has been developed, giving JAERI the ability to extract 99 percent of uranium from spent fuels.

Nikkan Kogyo Shimbun, 3/2/95, p. 33 (12638).

3/16/95

A high-level Japanese Foreign Ministry official announces that Japan is sending envoys to other undisclosed countries to increase support for the indefinite extension of the NPT. Japan failed to persuade Egyptian President Hosni Mubarak to pledge Egypt's support for an indefinite extension during his recent visit to Tokyo.

Kyodo News Service, 3/16/95; in FBIS-EAS-95-053, 3/16/95 (12776).

4/95

Tokyo Electric Power Company (TEPCO) Vice-President Ryo Ikegame comments on the future of Japan's reprocessing programs at the 28th annual conference of the Japan Atomic Industrial Forum (JAIF). Referring to a Japan Atomic Energy Commission plan published last year, Ikegame anticipates that roughly 10 reactors in Japan will be using mixed-oxide (MOX) fuel by the year 2000. The MOX fuel will be made in Europe until domestic Japanese facilities come on-line. One domestic complex is expected to start up prior to 2000, and the complex at Rokkasho-mura is to come on-line just after 2000.

Ann MacLachlan, *NuclearFuel*, 5/8/95, pp. 9-11 (12771).

4/1/94

Japanese officials discover a document on laser uranium enrichment technology among the effects of a member of the Aum Shinrikyo cult. The classified, "highly technical" document, which refers to laser beams and other technologies, comes from a heavy machine-making company experienced in the production of nuclear power stations. This is the first documentation of the cult's interest in nuclear technologies. The cult is also known to have an interest in atomic, biological, and chemical weapons.

Mainichi Shimbun, (Tokyo), Morning Edition, 4/2/95, p. 1; in FBIS-EAS-95-064, 4/2/95 (12683).
Mainichi Shimbun (Tokyo), Evening Edition, 4/3/95, p. 1; in FBIS-EAS-95-064, 4/3/95 (12683).

4/18/95

At the NPT Review and Extension Conference, Japanese Foreign Minister Yohei Kono supports the indefinite extension of the NPT and the eradication of nuclear arsenals. He reiterates Japan's commitment to use nuclear

energy for peaceful purposes only.

Atoms In Japan, 4/95, pp. 34-35 (12680).

4/19/95

Paul Dibb, head of Australian National University's Strategic and Defence Studies Center, states in an assessment for the International Institute for Strategic Studies (London), that by 2010 Japan is "most unlikely to have developed a nuclear force, but it probably will have reduced the research and development lead-times for such a capability."

Michael Richardson and Cameron Stewart, *Australian*, 4/19/95, pp. 1-2 (12813). *Canberra Times*, 4/21/95, p. 11 (12813).

5/1/95

According to Director Osamu Yamamura of the Power Reactor and Nuclear Fuel Development Corporation's (PNC) Nuclear Fuel Cycle Development Division, Japan is investigating a new fast breeder reactor-based (FBR) recycling system. Currently, PNC uses the Purex process, improvements on which use "co-process technology" whereby neptunium is extracted along with uranium and plutonium. PNC is looking at recovering uranium, plutonium, and such actinide elements as neptunium, americium, and curium for use in fuel assemblies. The recovered actinides would be fashioned into fuel assemblies for a FBR in a fuel fabrication plant. PNC plans to use FBRs to recycle minor actinides commercially by 2030. In order to develop actinide recycling, the Joyo and Monju reactors will irradiate the fuel, with post-irradiation testing and reprocessing occurring at the Alpha Gamma Facility (AGF) in O-arai.

Plutonium, No. 9, Spring 1995, pp. 3-8, (12825).

5/7/95

The Japanese Foreign Ministry announces an 11-month training course on nuclear test verification techniques for developing countries. The Foreign Ministry is holding the course to provide a foundation for the speedy completion and implementation of the Comprehensive Test Ban Treaty (CTBT).

Kyodo News Service (Tokyo), 5/7/95, in FBIS-TAC-95-003, 5/7/95, (12815).

6/13/95

Japanese Foreign Minister Yohei Kono an-

nounces Japan will submit a legal opinion to the International Court of Justice at The Hague on 6/20/95, regarding the use of nuclear weapons. The court requested that Japan and other countries make such a submission after a U.N. resolution was passed to investigate the international legality of nuclear warfare.

Kyodo News Service (Tokyo), 6/13/95; in FBIS-EAS-95-113, 6/13/95 (12810).

6/22/95

Japan's Kansai Electric Power Company plans to use uranium retrieved from spent fuel that was reprocessed by an unspecified European country in its Mihama-3 power plant. This will be the first instance of European reprocessed fuel being utilized at a Japanese power facility.

Power in Asia, 5/29/95, p. 23; in UI News Briefing 95/23, 5/31/95-6/6/95 (12773).

JAPAN WITH BELGIUM

3/20/95

Mitsubishi Heavy Industries ships three replacement steam generators from the port of Kobe, Japan, to Belgium's Tihange-1, a 908 MW pressurized water reactor. The power plant is run by SEMO, a partnership of Electrabel and Electricite de France. The deal marks the first export of steam generators by Mitsubishi.

Atoms in Japan, 3/2/95, pp. 25-26 (12636). *Nuclear Week*, 3/2/95, pp. 17-18 (12636).

JAPAN WITH FRANCE

4/25/95

The Pacific Pintail arrives at the port of Mutsu Ogawara, Japan, with a 28-canister shipment of vitrified high-level radioactive waste (HLW). Cogema generated the HLW for this shipment by reprocessing Japanese waste at a plant in La Hague, and on 2/23/95 the transport set sail for Japan from Cherbourg, France. The waste will initially be stored in Aomori prefecture's Rokkasho-mura storage facility for 50 years.

Nuclear Engineering International, 6/95, p. 8 (12824).

5/1/95

According to Osamu Yamamura, Director of the Power Reactor and Nuclear Fuel Development Corporation's (PNC) Nuclear Fuel Cycle Development Division, PNC, JAERI, and France are studying how to facilitate the recovery of americium and curium from HLW through the use of the solvent CAMPO.

Plutonium, No. 9, Spring 1995, pp. 3-8, (12825).

6/19/95

Cogema of France signs an enrichment contract estimated at 250 million francs (\$50 million) with Japan's Chubu Electric Power Company for the 1,100 MW Hamaoka boiling water reactor (BWR). The contract will be effective through 2006.

NuclearFuel, 6/19/95, p. 19 (12814).

JAPAN WITH INDONESIA AND PRC

5/2/95

Japan's Ministry of International Trade and Industry (MITI) and Natural Resources and Energy Agency (NREA) are planning to send a survey team to China and Indonesia as a prelude to exporting nuclear power plant components and supplying nuclear safety technology. MITI will assist in establishing safety and operating regulations as well as oversee transfers of nuclear technology and components required for the power plants. Science and Technology Agency (STA) Director General Makiko Tanaka will later chair an Atomic Energy Commission (AEC) committee to ensure that nuclear technology components and transfers do not develop into a proliferation concern.

Nihon Keizai Shimbun (Tokyo), 5/21/95, Morning Edition, p. 1; in FBIS-EAS-95-101, 5/21/95 (12809).

JAPAN WITH IRAN

5/95

Israel releases a document accusing 14 companies from Japan, Germany, Italy, Switzerland, the U.K. and the U.S. of supplying Iran with dual-use technology which may be used in the production of weapons of mass destruction. Kawasaki Heavy Industries, Sumitomo, Tomen, Nippon Steel, Nichiman

Nippon, and Kobe Steel are the Japanese companies involved.

International Security Digest, 5/95; in *Kyodo News Service*, 5/2/95 (13153).

JAPAN WITH MULTI-COUNTRY GROUP

3/3/95-3/8/95

The Atomic Energy Commission of Japan hosts the International Conference for Nuclear Cooperation in Asia, during which speakers from several Asian nations discuss prospects for nuclear power development in their countries, as well as for cooperative projects in the region. France, Japan, South Korea, Spain, the U.K., and the U.S. have been negotiating to bid on construction at the Qinshan nuclear facility, although 70 percent of the equipment will be supplied by domestic firms.

Atoms In Japan, 3/95, pp. 4-7 (12793).

JAPAN WITH NORTH KOREA AND MULTI-COUNTRY GROUP

See also North Korea section.

3/30/95

Japan and North Korea reach an agreement to resume talks which could re-establish diplomatic ties between them. U.S. and South Korean officials are concerned that renewal of relations between North Korea and Japan could undermine efforts to resolve problems in the implementation of the U.S.-DPRK 10/21/94 nuclear accord.

David P. Hamilton and Masayoshi Kanabayashi, *Wall Street Journal*, 4/3/95, p. A11 (12639).

6/15/95

It is reported that Japan is ready to resume normalization talks with North Korea, in view of the U.S.-DPRK joint press statement in Kuala Lumpur on 6/13/95. Japan had linked the normalization of ties to North Korea to the U.S.-DPRK nuclear negotiations since the beginning of preliminary normalization talks in 4/95 in Beijing.

Asahi Shimbun (Tokyo), 6/16/95, p. 2; in FBIS-EAS-95-117, 6/16/95 (13109). *Mainichi Shimbun* (Tokyo), 6/4/95, p. 2; in FBIS-EAS-95-109, 6/4/95 (13109).

JAPAN WITH PRC

3/95

A Japanese Ministry of International Trade and Industry (MITI) mission to China prompts Associated Press reports that Japan offered technical assistance to China for the construction of a pilot reprocessing plant.

Nuclear News, 4/95, p. 18 (12794).

5/22/95

Japanese government spokesman Kozo Igarashi states that grant aid to China will be reduced due to recent Chinese nuclear testing. In 1994, China received \$91.8 million in grants, which constituted 3 percent of Japan's grant aid program. The revised grant amounts are yet to be negotiated.

Washington Post, 5/23/95, p. A12 (12826).

5/24/95

An editorial characterizes Japan's reduction of grant aid to China (7.8 billion yen in 1994) in order to protest Chinese nuclear testing as ineffectual. Japan makes greater economic contributions to China through its yen loan programs, totalling 1.619 trillion yen in 1995. The new total, including the 580 billion yen pledged for disbursement in 1996, is 2.199 trillion yen, constituting 50 percent of all aid accepted by the PRC.

Sankei Shimbun (Tokyo), Morning Edition, 5/24/95, p. 2; in FBIS-EAS-95-104, 5/31/95 (12811).

JAPAN WITH RUSSIA

4/10/95

"Investigative sources" report that Japan's Aum Shinrikyo religious cult contacted Russian scientific experts in 1992 and 1993 to obtain nuclear technologies. In 1992, the cult's founder Shoko Asahara met with Russian Nobel Laureate for physics Nikolai Basov. In 1993, the Moscow branch of the cult requested a meeting with Russia's Minister of Atomic Energy Viktor Mikhailov, but the request was denied.

Kyodo (Tokyo), 4/10/95; in FBIS-EAS-95-070, 4/10/95 (12911).

JAPAN WITH UKRAINE

3/24/95

Yuri Kostenko, head of Ukraine's Ministry of Environmental Protection, and officials of Japan's Committee on Cooperation in Elimination of Nuclear Weapons sign a cooperation agreement to control the export and import of nuclear materials. The Japanese committee will provide Ukraine, free of charge, equipment and services necessary for more effective safeguards over the transfer of nuclear materials. Japan will also provide Ukraine assistance in upgrading its nuclear materials control and accounting system.

Interfax (Moscow), 3/24/95; in JPRS-TAC-95-012-L, 3/24/95 (12803).

JAPAN WITH UNITED KINGDOM

4/95

British Nuclear Fuels Ltd. (BNFL) is to open an office in Tokyo this summer in an attempt to expand its nuclear business in Japan. BNFL, which now has \$4.8 billion in contracts in Japan, would like to provide additional services for spent and mixed-oxide fuels, as well as engineering and instrumentation services. BNFL already has a U.K. Ministry of Defense contract to design and supply equipment for a reprocessing plant in Japan.

Pearl Marshall, *NuclearFuel*, 4/10/95, p. 14 (12637).

JAPAN WITH UNITED STATES

4/1/95

The U.S. and Japan agree to hold the first of two yearly meetings in 4/95 in order to establish "Japanese-U.S. Export Control Consultations." This organization will spearhead an effort to streamline regulations and facilitate the implementation of regime systems and will replace the defunct COCOM.

Nikkei Telecom Database (Tokyo), 3/13/95; in FBIS-EAS-94-052-A, 3/13/95, Annex (12772).

4/10/95

A recent Greenpeace report criticizes the U.S. Department of Energy (DOE) for shipping reprocessing technology to Japan's

Power Reactor and Nuclear Fuel Development Corporation (PNC) for use in its breeder reactor program. Greenpeace maintains that the technology supplied by the U.S. falls under the category of "irradiated fuel element chopping machines," which are on the Trigger List of the Nuclear Suppliers Group. Greenpeace contends that this transfer was not safeguarded and that Japan intends to sell the technology to a third party in the future. DOE's response is that the transfer of sensitive nuclear technology to a state with an advanced nuclear program is within the U.S.'s legal authority. However, DOE also announces an end to its participation in Japan's plutonium reprocessing program.

Dave Airozo, *NuclearFuel*, 4/10/95, pp. 17-18 (12679).

4/11/95

Mr. Onishi of Japan's PNC and Mr. Curtiss of DOE sign a new nuclear technology exchange accord. The agreement leaves out fast breeder reactors (FBRs), fuel cycle technology, and sodium coolant technology, but covers advanced reactors, and decommissioning, decontamination, and radiation technologies. It replaces a 1969 agreement between PNC and the U.S. Atomic Energy Commission.

Nuclear Engineering International, 6/95, p. 8 (12812).

LIBYA

INTERNAL DEVELOPMENTS

5/95

Libya says it "does not seek to possess nuclear weapons and...it does not have the intention, nor the desire, nor material or capabilities to produce such form[s] of weapons." It denounces President Clinton for suggesting otherwise in his 4/30/95 speech to the World Jewish Congress. Libya notes that it passed a 1992 IAEA inspection and that the IAEA director certified its compli-

ance with the terms of the NPT in 1992.

JANA (Tripoli), 5/2/95; in FBIS-NES-95-085, 5/2/95 (13219).

LIBYA WITH IRAQ, NORTH KOREA, AND UKRAINE

4/95

It is reported that Valeriy Andreyev, head of the Ukrainian Strategic Missile Force's Military Counterintelligence Main Department, said several countries, including Iraq, Libya, and North Korea are prepared to hire Ukrainian nuclear specialists. Andreyev said his department's task of preventing the leakage of Ukrainian technology and strategic secrets is being complicated by the reduction of strategic forces; experts must now seek employment elsewhere and may be looking abroad. Currently, there are no laws forbidding Ukrainian specialists from seeking employment at a foreign nuclear facility.

Viktor Melnyk, *Molod Ukrayiny* (Kiev), 4/13/95, p. 2; in FBIS-SOV-95-073, 4/13/95 (12996).

LIBYA WITH PAKISTAN

6/95

Libyan leader Muammar al-Quadhafi denies that Libya helped finance Pakistan's nuclear weapons program.

Ali Abbas Rizvi, *Asia Defence Journal*, 6/95, p. 73 (12878).

LIBYA WITH SOUTH AFRICA

4/7/95

Commenting on reports of South African scientists in Libya, Tielman de Waal, managing director of South Africa's state-owned armaments manufacturer, Armscor, declares that "the names of our nuclear scientists are limited to avoid foreign governments coming in and recruiting them." In 1994, the head of South Africa's intelligence service reported that foreign agents had tried to recruit South African nuclear scientists.

Reuter, 4/6/95 (12719).

NORTH KOREA

INTERNAL DEVELOPMENTS

3/95

An intelligence report, compiled for President Bill Clinton from analyses by the CIA, Defense Intelligence Agency, State Department, National Security Agency, and other U.S. intelligence agencies, predicts that North Korea will continue its program to develop nuclear weapons, despite the U.S.-DPRK 10/21/94 nuclear accord. The report says North Korea will allow its nuclear program to be dismantled if it has "covertly developed another source of fissile material." The report says North Korea will evade any IAEA inspections that might reveal how much plutonium it has produced but is likely to provide an accurate record of past activities if it experiences economic progress and sees a reduction in the threat of war over next five years. The report also forecasts that North Korea will attempt to "evade, delay and seek to minimize compliance" with provisions of the U.S.-DPRK nuclear accord which require it to dismantle its nuclear facilities, transfer spent nuclear fuel, and allow special nuclear inspections. The report does not rule out continued threats by North Korea to restart its 5 MW Yongbyon nuclear reactor for leverage in talks with the U.S.

Bill Gertz, *Washington Times*, 4/25/95, pp. A1, A20 (12734).

3/2/95

South Korean National Defense Committee Assemblyman Chyng Dai-chul says that the U.S.-DPRK 10/21/94 nuclear accord has not arrested North Korea's efforts to develop a nuclear device.

Barbara Opall, *Defense News*, 3/20/95-3/26/95, p. 8 (12725).

3/16/95

Former IAEA inspector David Kay says that North Korea has already acquired the necessary material to make a nuclear bomb and that a "validated, workable, deliverable design" will be complete in 1995. U.S. Insti-

tute for Science and International Security President David Albright says that North Korea has had "plenty of time to make a crude implosion design and to work on the [nuclear] weaponization process" since it began separating plutonium in the mid-1970s.

Barbara Opall, *Defense News*, 3/20/95-3/26/95, p. 8 (12725).

3/17/95

Korea Security Director of the American Security Council Foundation (ASCF) Dr. Kim Yong-hun a Korean-American, presents a paper which asserts that North Korea has already produced three 15 kT class nuclear devices. According to Kim, North Korea possesses a sufficient supply of plutonium to build 250 nuclear weapons.

Yonhap (Seoul), 3/18/95; in FBIS-EAS-95-053, 3/18/95 (12787).

3/20/95

U.S. and South Korean intelligence sources indicate that North Korea is simulating high explosive tests and improving its nuclear weapons design in locations that are not inspected by the IAEA and are not covered in the U.S.-DPRK 10/21/94 nuclear accord.

Barbara Opall, *Defense News*, 3/20/95-3/26/95, p. 8 (12725).

4/12/95

South Korean Institute of Foreign Affairs and National Security research professor Yun Duk-min says North Korea had by 1989 separated approximately 12 kg of plutonium, enough for two nuclear weapons. Yun explains that North Korea could use its plutonium to build a nuclear weapon, since the U.S.-DPRK 10/21/94 nuclear accord does not provide for full inspection until the transfer of the LWRs, five years from now.

Kyodo (Tokyo), 4/12/95; in FBIS-EAS-95-070, 4/12/95 (13057).

4/18/95

Kim Su-man, North Korean deputy delegate to the NPT Review and Extension Conference in New York, suggests that North Korea cannot support the indefinite extension of the NPT until the five nuclear weapon states reduce their nuclear arsenals.

KBS-1 (Seoul), 4/18/95; in FBIS-EAS-95-074, 4/18/95 (13058).

5/10/95

Three days before the end of the NPT Review and Extension Conference, North Korean Chief Delegate to the U.N. Pak Kil-yon announces in a letter to Conference Chairman Jayantha Dhanapala that North Korea will no longer participate in the conference. According to Pak, North Korea is withdrawing from the conference due to "biased documents" at the conference which refer to the nuclear issue on the Korean Peninsula and because certain participants at the conference refuse to acknowledge the U.S.-DPRK 10/21/94 nuclear accord. Pak reiterates that North Korea has "special status" due to its withdrawal from the NPT, and it only participated in the conference out of regard for the U.S.-DPRK accord. Others suggest that North Korea's withdrawal from the conference is in anticipation of a proposal for a strengthened nuclear [safeguards] agreement for North Korea and criticism of the North Korean nuclear program in the final document. North Korea provided only counselor-level representation to the NPT conference and supported a Non-Aligned Movement proposal for a 25-year extension of the NPT.

Yonhap (Seoul), 5/11/95; in JPRS-TAC-013-L, 5/11/95 (13058).

NOTE: Because multilateral activities regarding North Korea's nuclear program involve different groups of participants at various stages, certain entries in this section have been divided by topic, as follows:

I. Follow-up to 10/21/94 U.S.-DPRK Nuclear Accord and Selection of LWR Model:

NORTH KOREA WITH JAPAN, SOUTH KOREA, AND UNITED STATES

II. The Korean Peninsula Energy Development Organization (KEDO):

NORTH KOREA WITH AUSTRALIA, BRUNEL, CANADA, FRANCE, GERMANY, INDONESIA, JAPAN, KUWAIT, MALAYSIA, NEW ZEALAND, PHILIPPINES, SAUDI ARABIA, SOUTH KOREA, THAILAND, UNITED ARAB EMIRATES, UNITED KINGDOM, AND UNITED STATES

I. Follow-up to 10/21/94 U.S.-DPRK Nuclear Accord and Selection of LWR Model:

NORTH KOREA WITH JAPAN, SOUTH KOREA, AND UNITED STATES

3/21/95

North Korea announces that it will discontinue the freeze on its nuclear program if the U.S. and North Korea fail to resolve differences about implementation of the U.S.-DPRK 10/21/94 nuclear accord. North Korea states it will resume operation of its nuclear facilities if agreement on a contract for the provision of LWRs is not achieved by 4/21/95.

Jim Mann, *Los Angeles Times*, 3/23/95, pp. A1, A3 (12729). Reuter, 3/23/95; in Executive News Service, 3/23/95 (12729).

3/23/95

U.S. State Department spokesman David Johnson explains that the 4/21/95 objective for completion of an LWR contract with North Korea under the U.S.-DPRK 10/21/94 nuclear accord is not a "deadline" and that the U.S. will continue its "best efforts" to resolve the issue as long as North Korea maintains the freeze on its nuclear program.

Reuter, 3/23/95; in Executive News Service, 3/23/95 (12729).

3/25/95-3/27/95

The U.S. and North Korea meet in Berlin to try to break the deadlock concerning South Korea's role in supplying LWRs to North Korea under the U.S.-DPRK 10/21/94 nuclear accord. The talks end prematurely without agreement. The South Korean news agency Yonhap reports that North Korea is demanding that a U.S. firm supply the LWRs and run the project. North Korea says it is concerned about safety problems that could result from relying primarily on South Korea's nuclear expertise. The participation of South Korean technicians in the project would only be acceptable to North Korea if a U.S. firm, such as Westinghouse or ABB Combustion Engineering (ABB-CE), were responsible for the design of key reactor components. North Korea reportedly indicates it would allow South Korean-type LWRs if they are provided by ABB-CE and altered from the Korean standard design to

ensure safety, and if the U.S. agrees to supply an additional \$1 billion to North Korea for power transmission lines and other needed equipment.

Steve Pagani, Reuter, 3/27/95; in Executive News Service, 3/27/95 (12727). R. Jeffrey Smith, *Washington Post*, 3/28/95, p. A11 (12727). Yonhap (Seoul), 3/29/95; in FBIS-EAS-95-060, 3/29/95 (12727). Yonhap (Seoul), 3/30/95; in FBIS-EAS-96-061, 3/30/95 (12727).

3/30/95

South Korean Foreign Minister Kong Nam-yong repeats the South Korean position that there will be "no provision of light water reactors if Seoul is denied a central role in the reactor project." He also indicates that the U.S., South Korea, and Japan are still working closely to maintain a coordinated position on the issue.

Korea Times (Seoul), 3/31/95, p. 2 (12727).

3/31/95

A South Korean Foreign Ministry official says South Korea has asked the U.S. to prevent U.S. companies, particularly Westinghouse, from lobbying in North Korea to promote U.S. reactor designs.

Yonhap (Seoul), 3/31/95; in FBIS-EAS-95-062, 3/31/95 (12727).

4/1/95

The South Korean newspaper *Dong-A Ilbo* reports that during the 3/95 U.S.-DPRK talks in Berlin, North Korean negotiators sought the removal of U.S. troops from South Korea and the creation of a "new peace and security status" with the U.S. as part of the implementation of the U.S.-DPRK 10/21/94 nuclear accord.

Reuter, 4/2/95; in Executive News Service, 4/1/95 (12731).

4/2/95

The South Korean government may declare "causal nullification" of the U.S.-DPRK 10/21/94 nuclear accord if North Korea does not accept South Korean-style LWRs by 4/21/95.

Ko Tae-song, *Hanguk Ilbo* (Seoul), 4/3/95, p. 1; in FBIS-EAS-95-063, 4/3/95 (13061).

4/3/95

The U.S. announces it will attempt to persuade North Korea that the improved C-80 LWR requested by North Korea is a South

Korean-designed nuclear reactor, not a U.S. model.

KBS-1 (Seoul), 4/3/95; in FBIS-EAS-95-063, 4/3/95 (13061).

4/7/95

South Korean Secretary-General of the Office of Planning for the Light Water Reactor Project Choe Tong-chin, Japanese Nuclear Ambassador Tetsuya Endo, and U.S. Ambassador-at-Large Robert Gallucci resolve during high-level ambassadorial talks in New York that LWRs provided to North Korea must be based upon the South Korean model and that South Korea must maintain a central role in constructing the reactors. The three countries agree to respect this position in upcoming negotiations between the U.S. and North Korea on 4/12/95. The U.S., Japan, and South Korea also agree that they will pursue actions to punish North Korea, possibly through U.N. Security Council sanctions, if North Korea rejects the South Korean reactor model and restarts its nuclear reactor.

Yonhap (Seoul), 4/8/95; in FBIS-EAS-95-068, 4/8/95 (13061).

4/12/95-4/13/95

The U.S. and North Korea meet in Berlin to discuss the supply of LWRs to North Korea under the terms of the U.S.-DPRK 10/21/94 nuclear accord. U.S. negotiator Gary Samore heads the U.S. delegation. During the talks, North Korea offers to permit South Korean participation in the provision of LWRs, but neither the U.S. nor North Korea alters the views they presented during talks in Berlin in late 3/95. North Korea requests that a U.S. company act as main contractor in the LWR project and that the order be placed by the Korea [Choson] Facilities Joint-Stock Company, instead of the Korean Peninsula Energy Development Organization (KEDO). A senior South Korean Foreign Ministry official says that the issue of "to what extent the [South Korean-model] reactors should be redesigned" remains important. The South Korean press also indicates that North Korea wants to make the implementation of the U.S.-DPRK nuclear agreement dependent on the conclusion of a new peace treaty between the U.S. and North Korea.

Hans-Juergen Mortiz, Reuter, 4/12/95; in Executive

News Service, 4/12/95 (13090). Yonhap (Seoul), 4/13/95; in FBIS-EAS-95-071, 4/13/95 (13090). Yonhap (Seoul), 4/14/95; FBIS-EAS-95-072, 4/14/95 (13090). Steve Pagani, Reuter; in *Washington Times*, 4/15/95, p. A7 (13090). *New York Times*, 4/15/95, p. 2 (13090). Yi Pyong-kwang, *Kyonghyang Sinmun* (Seoul), 4/19/95, p.2; in FBIS-EAS-95-075, 4/19/95 (13090).

4/18/95-4/20/95

After resuming talks with North Korea in Berlin on 4/18/95, the U.S. offers a compromise, proposing that the LWR project in North Korea be coordinated by a U.S. firm representing KEDO. North Korea's chief negotiator, Kim Jong-u, rejects the proposal, saying it still gives South Korea a significant role in the project. North Korea says that, while the LWR supply agreement could be arranged between North Korea and KEDO, the construction contract itself must be arranged with a U.S. company rather than the Korea Electric Power Corporation (KEPCO) of South Korea. North Korea also rejects a U.S. proposal to provide a modified version of the Korean standard System 80 model, using the South Korean model as the reference reactor in the supply contract. On 4/20/95, a North Korean negotiator terminates expert-level negotiations with the U.S. on the provision of LWRs, thereby preventing fulfillment of the U.S.-DPRK 10/21/94 nuclear accord's objective to reach agreement by 4/21/95. Kim rejects a U.S. proposal for high-level talks.

Michael Shields, Reuter, 4/18/95; in Executive News Service, 4/18/95 (12733). R. Jeffrey Smith, *Washington Post*, 4/22/95, pp. A19, A24 (12733). *Yomiri Shinbun*, 4/25 (12733).

4/21/95

U.S. Secretary of State Warren Christopher asks North Korea to agree to higher-level U.S.-DPRK nuclear talks involving U.S. Ambassador-at-Large Robert Gallucci and North Korean First Vice Minister of Foreign Affairs Kang Sok-ju. According to a senior U.S. official, higher-level talks would replace North Korea's current chief negotiator Kim Jong-u, who is seen as a tough negotiator, with Kang, who led the initial negotiations with Gallucci that resulted in the 10/21/94 U.S.-DPRK nuclear accord.

Xinhua (Beijing), 4/21/95; in FBIS-CHI-95-078, 4/21/95 (13007). R. Jeffrey Smith, *Washington Post*, 4/22/95, pp. A19, A24 (12733). *Korea Herald* (Seoul), 4/26/95, p. 1; in FBIS-EAS-95-080 (13007).

4/23/95

The South Korean government indicates that it can be flexible in the nomenclature of the reactors to be provided to North Korea under the U.S.-DPRK 10/21/94 nuclear accord. According to South Korean officials, as long as the South Korean model is actually used, it is insignificant if the formal name of the LWRs to be supplied does not reveal the reactor's origins.

Kim Chang-ki and Kim Sung-yong, *Choson Ilbo* (Seoul), 4/24/95, p. 2; in FBIS-EAS-95-078, 4/24/95 (13055).

4/24/95

North Korean Foreign Minister Kang Sok-chu says in a note to U.S. Ambassador-at-Large Robert Gallucci that North Korea will agree to high-level negotiations with the U.S. only if LWRs provided to North Korea are U.S.-designed.

Korea Herald (Seoul), 4/26/95, p. 1; in FBIS-EAS-95-080, 4/26/95 (13007).

4/25/95

The U.S. State Department sends a letter to North Korea asking again for renewed high-level talks on the nuclear issue in Geneva, while reiterating that only South Korean standard-model LWRs will be provided under the U.S.-DPRK 10/21/94 nuclear accord.

Yonhap (Seoul), 4/27/95; in FBIS-EAS-95-081, 4/27/95 (13007).

4/27/95

A South Korea-based source says that if North Korea will allow South Korea to be the primary supplier and designer, South Korea and the U.S. are prepared to compromise on the form of the LWR supply contract. The two also agree to exclude specific mention of South Korea's Ulchin-3 and -4 reactors as well as references to South Korea's standard-model nuclear reactor. North Korean U.N. Minister Han Song-yol tells the South Korean news agency Yonhap that North Korea will partially end the freeze on its nuclear facilities after resuming high-level negotiations with the U.S., since no change in the U.S. position on the LWRs is expected. According to U.S. newspaper *U.S.A. Today*, Han says that North Korea will renew talks with the U.S. after restarting its nuclear program.

Kim Song-ho, *Hangyore Sinmun* (Seoul), 4/28/95,

p. 3; in FBIS-EAS-95-082 (13007). Ben Barber, *Washington Times*, 4/28/95, pp. A1, A16 (12735). Yonhap (Seoul), 4/28/95; in FBIS-EAS-95-082, 4/28/95 (13007).

5/1/95

North Korea announces in a note to U.S. Ambassador-at-Large Robert Gallucci that it will renew higher-level talks with the U.S. on the North Korean nuclear issue "without preconditions." Gallucci indicates that, should North Korea restart its nuclear program, the U.S. will not hesitate to bring the case before the U.N. Security Council, in conjunction with Japan and South Korea.

Xinhua (Beijing), 5/1/95; in FBIS-CHI-95-084, 5/1/95 (13007). *Chungang Ilbo* (Seoul), 5/3/95, pp. 1, 6; in FBIS-EAS-95-085, 5/3/95 (13007).

5/10/95

Following three days of talks on the North Korean nuclear issue, U.S. Ambassador-at-Large Robert Gallucci, South Korean Secretary General of the Office of Planning for the Light Water Reactor Project Choi Dong-jin, and Japanese Nuclear Ambassador Tetsuya Endo deliver a statement confirming that South Korea must play a primary role in the provision of LWRs to North Korea. The three countries also advise North Korea not to restart its nuclear program prior to high-level U.S.-DPRK negotiations scheduled for late 5/95 and encourage dialogue between North and South Korea as a step towards improved North-South relations.

Washington Times, 5/11/95, p. A20 (13008). AFP; in *International Herald Tribune*, 5/11/95 (13008).

5/12/95

North Korea announces that it will maintain the freeze on its nuclear facilities in anticipation of upcoming talks with the U.S.

Independent, 5/12/95 (13006).

5/15/95

A South Korean official announces that North Korea has agreed to hold high-level nuclear talks with the U.S. in Kuala Lumpur, Malaysia, to resolve the current impasse on implementation of the U.S.-DPRK 10/21/94 nuclear accord.

AP; in *International Herald Tribune*, 5/16/95 (13006).

5/19/95

U.S. Deputy Assistant Secretary of State Thomas Hubbard and North Korean Vice Foreign Minister Kim Kye-kwan begin U.S.-DPRK nuclear talks in Kuala Lumpur, Malaysia.

Yonhap (Seoul), 5/27/95; in FBIS-EAS-95-103, 5/27/95 (13115). Reuter, 6/13/95; in *Executive News Service*, 6/13/95 (13115).

5/23/95

A South Korean official claims North Korea is demanding LWRs designed by the U.S. company ABB Combustion Engineering (ABB-CE) because the company provided a report to North Korea during U.S.-DPRK negotiations in 1/95. The alleged report emphasized the superiority of ABB-CE's System 80 model LWRs over the South Korean Ulchin-3 and -4 reactor models. U.S. officials in South Korea deny on 5/30/95 that ABB-CE has had any contacts with North Korea regarding the supply of LWRs.

Kim Hyon-ho, *Choson Ilbo* (Seoul), 5/23/95, p. 1; in FBIS-EAS-95-099, 5/23/95 (13113). Yonhap (Seoul), 5/30/95; in FBIS-EAS-95-103, 5/30/95 (13113).

5/29/95

North Korea repeats a request to the U.S. in Kuala Lumpur for an extra \$1 billion to pay for supplementary facilities for the LWRs. South Korean officials claim that South Korea will refuse to provide such additional funding.

Korea Herald (Seoul), 6/2/95; in FBIS-EAS-95-107, 6/2/95 (13115).

6/6/95

In the Kuala Lumpur talks with the U.S., North Korea accepts the possibility that South Korea's KEPCO will be the main contractor in the LWR project.

Yi Pyong-chun, *Munhwa Ilbo* (Seoul), 6/6/95, p. 1; in FBIS-EAS-95-108, 6/6/95 (13115).

6/7/95

The U.S. and North Korea reach agreement in Kuala Lumpur on a number of key issues, including the role of South Korea and South Korean reactors in the LWR deal, and begin drafting a final statement. U.S. Congressman Bill Richardson says that, during his 6/3/95 to 6/5/95 visit to North Korea, the DPRK threatened to discontinue the freeze on its nuclear facilities and begin reprocess-

ing its spent nuclear fuel rods if the current U.S.-DPRK talks in Kuala Lumpur come to an impasse.

Yi Hyon-chu, KBS-1 (Seoul), 6/7/95; in FBIS-EAS-95-109, 6/7/95 (13115). David Brunnstrom, Reuter, 6/7/95; in Executive News Service, 6/6/95 (13115).

6/10/95

A North Korean Foreign Ministry spokesman says that due to the erosion of its stored spent nuclear fuel rods, North Korea will be forced to begin reprocessing the rods if the U.S.-DPRK negotiations in Kuala Lumpur are not quickly resolved.

Xinhua (Beijing), 6/10/95; in FBIS-CHI-95-112, 6/10/95 (13115). AP; in *Washington Post*, 6/11/95 (13115).

6/11/95

U.S. and North Korea agree during talks in Kuala Lumpur that the issue of supplementary facilities for the LWRs, for which North Korea has repeatedly requested an additional \$1 billion, will be addressed at later talks between KEDO and North Korea.

Korea Herald (Seoul), 6/2/95, p. 2; in FBIS-EAS-95-107, 6/2/95 (13115). Yonhap (Seoul), 6/11/95; in FBIS-EAS-95-112, 6/11/95 (13115).

6/12/95

The U.S. and North Korea announce that they have agreed to refer to South Korean-model reactors in the LWR supply contract using a "technical description that alludes only indirectly to their South Korean origin."

R. Jeffrey Smith, *Washington Post*, 6/13/95; in Executive News Service, 6/13/95 (13115).

6/13/95

The U.S. and North Korea deliver a joint press statement outlining mutually agreed provisions for the further implementation of the U.S.-DPRK 10/21/94 nuclear accord. The announcement follows the completion of nuclear talks in Kuala Lumpur, Malaysia. The U.S. and North Korea reconfirm their obligations to execute the nuclear accord. The statement defines the reactors to be provided to North Korea under the accord as "two pressurized light water reactors with two coolant loops and a generating capacity of approximately 1,000 MW(e) each." The design model is defined as "the advanced version of U.S.-origin design and technology currently under production," and will be chosen by KEDO. KEDO will name

a prime contractor for the construction. The statement also says that KEDO is to fund and oversee the construction of LWRs in North Korea, with the U.S. serving as the "principal point of contact" to facilitate KEDO's fulfillment of this role. The statement announces that North Korea's Commission for External Economic Relations will soon meet with KEDO to resolve outstanding issues with a view to concluding a turnkey LWR supply contract. A process is outlined in which a "programme coordinator" provided by a U.S. company will be chosen by KEDO to "assist KEDO in supervising overall implementation of the LWR project," while a North Korean company will also participate "as necessary" to implement the project. The statement says that KEDO will carry out a survey of the LWR site and that the survey and site preparation are to be included in the overall cost of construction, as provided under the 10/21/94 accord. Regarding other aspects of the U.S.-DPRK nuclear accord, the joint statement indicates that a U.S. group of experts will travel to North Korea in 6/95 to begin implementing safe storage of spent nuclear fuel, as per the U.S.-DPRK 1/20/95 Record of Meeting. KEDO will organize the first delivery of heavy fuel oil to North Korea without delay, pending conclusion of a schedule and cooperative agreement during expert meetings between the U.S. and North Korea in 6/95. The U.S. also reconfirms the validity of a letter dated 10/20/94 from President Bill Clinton, which assured North Korea that it would receive the LWRs and fuel. Counselor Han Song-yol of the North Korean Mission to the U.N. asserts that the LWRs alluded to in the U.S.-DPRK joint statement are of U.S. and not South Korean design.

Reuter, 6/13/95; in Executive News Service, 6/13/95 (13115). KBS-1 (Seoul), 6/14/95; in FBIS-EAS-95-114, 6/14/95 (13051).

6/14/95

U.S. Ambassador-at-Large Robert Gallucci says that the U.S.-DPRK Kuala Lumpur joint statement gives an "accurate description" of the South Korean Ulchin reactors 3 and 4 and that KEDO took the "necessary steps" on 6/13/95 to guarantee that South Korea will be the primary supplier of the LWRs to

North Korea.

Yonhap (Seoul), 6/14/95; in FBIS-EAS-95-114, 6/14/95 (13115).

6/16/95

Japan, South Korea, and the U.S. will send a group of experts to North Korea in 7/95 to look for a construction site for LWRs. The 10-member team will investigate several possible LWR locations in North Korea, including Sinpo. Eight to 12 months are needed to make a final decision on the site location.

KBS-1 (Seoul), 6/16/95; in FBIS-EAS-95-116, 6/16/95 (13110).

II. The Korean Peninsula Energy Development Organization (KEDO):

NORTH KOREA WITH AUSTRALIA, BRUNEL, CANADA, FRANCE, GERMANY, INDONESIA, JAPAN, KUWAIT, MALAYSIA, NEW ZEALAND, PHILIPPINES, SAUDI ARABIA, SOUTH KOREA, THAILAND, UNITED ARAB EMIRATES, UNITED KINGDOM, AND UNITED STATES

2/28/95

Australian Foreign Minister Gareth Evans announces that Australia will provide \$5 million to help pay for heavy oil supplies to North Korea and finance headquarters in New York for the Korean Peninsula Energy Development Organization (KEDO), the international consortium that will help organize the provision of LWRs to North Korea.

J.T. Nguyen, UPI, 3/9/95; in Executive News Service, 3/10/95 (12723). *Washington Times*, 3/1/95, p. A15 (12723).

3/7/95

Japanese Chief Cabinet Secretary Kozo Igarashi announces that Japan will contribute \$3 million to the construction of LWRs in North Korea and \$2.8 million to fund the KEDO secretariat.

Reuter, 3/7/95; in Executive News Service, 3/7/95 (12723). Naoki Usui, *Nucleonics Week*, 3/16/95, p. 14 (12639).

3/8/95-3/9/95

Over 20 countries from Europe, the Middle East and Asia attend a two-day briefing on KEDO, presented by the U.S., South Korea, and Japan in New York. New Zealand, Australia, and Canada join KEDO, and New Zealand offers \$325,000 to the organization. Canada indicates that it will also contribute to KEDO.

Steven Greenhouse, *New York Times*, 3/10/95, p. A6 (12723). Julia Preston and R. Jeffrey Smith, *Washington Post*, 3/10/95; in Executive News Service, 3/10/95 (12723).

3/9/95

U.S. Ambassador-at-Large Robert Gallucci, South Korean Secretary-General of the Office of Planning for the Light Water Reactor Project Choi Dong-jin, and Japanese Nuclear Ambassador Tetsuya Endo sign an agreement to establish KEDO. The agreement names the "[South] Korean standard nuclear plant model" as the type of LWR to be provided to North Korea. All three countries will finance the maintenance of KEDO's secretariat.

J.T. Nguyen, UPI, 3/9/95; in Executive News Service, 3/10/95 (12723). *Nuclear News*, 4/95, p. 17 (12723). Julia Preston and R. Jeffrey Smith, *Washington Post*, 3/10/95; in Executive News Service, 3/10/95 (12723).

4/5/95

The U.K. announces that it will contribute \$1 million to KEDO for the implementation of the U.S.-DPRK 10/21/94 nuclear accord. A senior South Korean Foreign Ministry official announces that South Korea has agreed to assign a "project manager" for KEDO who will be responsible for signing a contract and coordinating the construction of LWRs in North Korea. South Korea recommends that the U.S. company Bechtel be selected for the role of project manager. The U.S. had suggested that a "project supervisory organization," headed by a U.S. company, be created to handle communication between North Korea and the South Korean contractor for the LWRs. The South Korean government is prepared to support the proposal for a project manager during upcoming talks with the U.S. and Japan regarding the North Korean nuclear issue on 4/7/95, in lieu of its earlier plan to establish a "program coordinator" comprised of a small

number of service enterprises. According to a senior South Korean official, the role of the KEDO project manager will be to oversee all activities associated with the LWR project as the main "point of contact" with North Korea and as the representative of KEDO, whose staff of under 40 will have limited technical expertise.

Yonhap (Seoul), 4/5/95; in FBIS-EAS-95-065, 4/5/95 (12788). Yi Pyon-so and Han Chong-ho, *Munhwa Ilbo* (Seoul), 4/5/95, p. 1; in FBIS-EAS-95-065, 4/5/95 (13005). Yonhap (Seoul), 4/18/95; in FBIS-EAS-95-074, 4/18/95 (13005). KBS-1 (Seoul), 4/18/95; in FBIS-EAS-95-074 (13005).

4/21/95

A U.S. State Department official says that the U.S. is considering the U.S. company Bechtel for the role of project manager for the LWR project in North Korea. Bechtel has participated in joint construction of LWRs with the U.S. company, ABB Combustion Engineering, which designed the reactor System 80 model. The State Department official says that the U.S. wants South Korea's Korea Electric Power Corporation (KEPCO) named as the main contractor for the LWR project in North Korea. It is reported that Singapore has donated \$300,000 to KEDO.

Yonhap (Seoul), 4/23/95; in FBIS-EAS-95-078 (13005). Singapore Radio Corporation, 4/21/95; in FBIS-EAS-95-079, 4/25/95 (13056).

6/1/95

A senior Japanese Foreign Ministry official indicates that Japan is prepared to furnish "interest-free loans" for the construction of LWRs in North Korea.

Nihon Keizai Shimbun (Tokyo), 6/16/95; in FBIS-EAS-95-122-A, 6/16/95 (12808).

Early 6/95

Germany offers to donate about \$1 billion to KEDO for the LWR project in North Korea.

John Burton, *Financial Times*, 6/14/95, p. 8 (13117).

6/13/95

The executive board of KEDO meets in Seoul to outline the steps that KEDO will take to conclude an LWR supply contract with North Korea. U.S. Ambassador-at-Large and KEDO Executive Board Chairman Robert Gallucci, Japanese Nuclear Ambassador Tetsuya Endo, and South Ko-

rean Secretary-General of the Office of Planning for the Light Water Reactor Project Choi Dong-jin are present at the meeting. KEDO acknowledges its responsibility, as defined in the 6/13/95 U.S.-DPRK joint press statement, for selection of the LWR model and the main contractor for the LWR project in North Korea. KEDO resolves that South Korea's standard model Ulchin-3 and -4 nuclear reactors will serve as the reference models for the two 1,000 MW reactors to be provided to North Korea. KEDO also states that it will choose a South Korean firm, probably KEPCO, to play the role of main contractor and to handle "design, manufacture, construction, and management" of the LWR project in North Korea. KEDO authorizes its executive representatives to start negotiations with North Korea to conclude the main contract for LWRs, as well as to arrange for oil shipments to North Korea and safe storage of North Korea's spent nuclear fuel under the 10/21/94 U.S.-DPRK nuclear accord. KEDO also decides to begin talks with North Korea on LWR supply and to start preparations to carry out a reactor site survey. Malaysian Foreign Minister Datuk Abdullah Ahmad Badawi announces that Malaysia will provide \$300,000 [figure as heard] to KEDO to provide fuel supplies to North Korea and to help activate the new nuclear reactors.

The Executive Board of the Korean Peninsula Energy Development Organization, Resolution No. 1995-12, 6/13/95; in *US-Korea Review*, 5/95-6/95, p. 9 (13117). Yonhap (Seoul), 6/13/95; in FBIS-EAS-95-113, 6/13/95 (13117). Shim Sung-won, Reuter, 6/13/95; in Executive News Service, 6/13/95 (13117). Radio Malaysia (Kuala Lumpur), 6/13/95; in FBIS-EAS-95-115, 6/13/95 (13114).

6/14/95

KEPCO President Yi Chong-hun says that KEPCO will provide the technological expertise necessary for KEDO to choose a LWR construction site and carry out the project in North Korea. According to Yi, an initial feasibility survey will determine whether either the Nampo or Sinpo site is appropriate for LWR construction.

Kwon Hyok-chan, *Sinmun* (Seoul), 6/15/95, p. 5; in FBIS-EAS-95-116, 6/15/95 (13117).

6/15/95

A South Korean official says South Korea is working with the U.S. and Japan to orga-

nize a general meeting for KEDO in New York in late 6/95. The purpose of the meeting will be to facilitate the conclusion of a supply contract for LWRs between North Korea and KEDO. In addition to Japan, South Korea, and the U.S., 14 other countries are expected to attend the meeting, including Australia, Brunei, Canada, France, Germany, Indonesia, Kuwait, Malaysia, New Zealand, the Philippines, Saudi Arabia, Thailand, the UAE, and the U.K. KEDO and its secretariat are expected to be functioning by the time the first general meeting convenes. Stephen Bosworth, the U.S. head of the U.S.-Japan Fund, is tentatively named KEDO Secretary-General, and former South Korean Foreign Ministry International Economy Bureau Director Cho Yong-chin and Japanese Foreign Ministry Counselor for International Cooperation Itaru Umezu are tentatively named deputy secretaries-general.

Munhwa Ilbo (Seoul), 6/15/95, p. 2; in FBIS-EAS-95-115, 6/15/95 (13050). *Munhwa Ilbo* (Seoul), 6/14/95, p. 1; in FBIS-EAS-95-114, 6/14/95 (13050).

6/21/95

Japan asks representatives from 28 countries to become contributing members of KEDO.

Sankei Shinbun (Tokyo), 6/22/95, p. 5; in FBIS-EAS-95-123, 6/22/95 (13120).

NORTH KOREA WITH CZECH REPUBLIC

Early 6/95

Lubomir Soudek, director general of the Czech Republic's Skoda Plzen, says his firm can provide North Korea with nuclear reactors to fulfil the stipulations of the U.S.-DPRK 10/21/94 nuclear accord. Soudek has not requested a license to export the reactors, and U.S., South Korean, and North Korean officials in Prague decline to comment on the proposal.

Respekt (Prague), 6/5/95-6/11/95, p. 4; in FBIS-EEU-95-112 (13052).

NORTH KOREA WITH FORMER SOVIET UNION, IRAN, AND PRC

5/95

Iranian exiles residing in Europe say Iran has tunneled into a mountain close to the

city of Chalus on the Caspian Sea to create a clandestine nuclear weapons development site. The exiles claim Iran is employing technicians from the former Soviet Union, China, and North Korea at the site.

U.S. News & World Report, 5/1/95, p. 24 (12848).

NORTH KOREA WITH IAEA

3/2/95

Although North Korea has allowed the IAEA to monitor the Yongbyon nuclear reactor and spent fuel cooling pond to ensure against reloading or diversion of nuclear material, it refuses to allow Agency inspectors to sample or analyze the spent fuel. It also refuses to grant the IAEA access to the Yongbyon "radiochemical laboratory" facility or to information that could uncover the facility's plutonium processing history. Access to information about North Korea's past nuclear activities is expected to remain a problem during continued discussions in 3/95. IAEA Department of Safeguards Director Demitrios Perricos is scheduled to accompany IAEA diplomats to North Korea for talks. North Korea appears reluctant to grant additional visas for inspectors to join the four who are already verifying the freeze of known nuclear facilities. IAEA spokesman David Kyd says that North Korea has not come any closer to reinstating its membership in the IAEA.

Mark Hibbs, *Nucleonics Week*, 3/2/95, pp. 4-5 (12722).

3/29/95

The IAEA Board of Governors asks North Korea to permit IAEA inspectors to measure the amount of plutonium in the spent fuel of its 5 MW Yongbyon reactor and in liquid waste from its radio-chemical laboratory, in addition to allowing verification of the freeze on North Korean nuclear facilities.

Yonhap (Seoul), 3/30/95; in FBIS-EAS-95-061, 3/30/95 (13045).

3/30/95

Agency Director General Hans Blix informs the IAEA Board of Governors that North Korea and the IAEA are expected to continue talks regarding inspections of North

Korea's nuclear facilities in the following months.

AFP, 3/30/95; in FBIS-EAS-95-062, 3/30/95 (13045).

4/11/95

IAEA Director General Hans Blix says that IAEA inspectors stationed at North Korea's nuclear facilities have not witnessed any refuelling activity. Blix denies saying that North Korea was about to refuel its 5 MW Yongbyon nuclear reactor, as had been quoted in a 4/8/95 report by South Korea's Yonhap news agency.

Reuter; in *Washington Post*, 4/9/95, p. A28 (12732).

Reuter; in *Washington Post*, 4/11/95, p. A6 (12732).

6/12/95

IAEA Director General Hans Blix informs the IAEA Board of Trustees that North Korea serviced its 5 MW Yongbyon nuclear reactor in the presence of IAEA inspectors and is expected to do the same at its radiochemical laboratory. Analysts say that this maintenance can be interpreted as preparation by North Korea to restart its nuclear facilities should U.S.-DPRK talks over LWRs break down.

Cha Man-sun, KBS-1 (Seoul), 6/12/95; in FBIS-EAS-95-112, 6/12/95 (13053).

NORTH KOREA WITH IRAQ, LIBYA, AND UKRAINE

4/95

It is reported that Valeriy Andreyev, head of the Ukrainian Strategic Missile Force's Military Counterintelligence Main Department, said several countries, including Iraq, Libya, and North Korea are prepared to hire Ukrainian nuclear specialists. Andreyev said his department's task of preventing the leakage of Ukrainian technology and strategic secrets is being complicated by the reduction of strategic forces; experts must now seek employment elsewhere and may be looking abroad. Currently, there are no laws forbidding Ukrainian specialists from seeking employment at a foreign nuclear facility.

Viktor Melnyk, *Molod Ukrayiny* (Kiev), 4/13/95, p. 2; in FBIS-SOV-95-073, 4/13/95 (12996).

**NORTH KOREA WITH JAPAN AND
MULTI-COUNTRY GROUP**

3/30/95

Japan and North Korea reach an agreement to resume talks which could re-establish diplomatic ties between them. U.S. and South Korean officials are concerned that renewal of relations between North Korea and Japan could undermine efforts to resolve problems in the implementation of the U.S.-DPRK 10/21/94 nuclear accord.

David P. Hamilton and Masayoshi Kanabayashi, *Wall Street Journal*, 4/3/95, p. A11 (12639).

6/15/95

It is reported that Japan is ready to resume normalization talks with North Korea, in view of the U.S.-DPRK joint press statement in Kuala Lumpur on 6/13/95. Japan had linked the normalization of ties to North Korea to the U.S.-DPRK nuclear negotiations since the beginning of preliminary normalization talks in 4/95 in Beijing.

Asahi Shimbun (Tokyo), 6/16/95, p. 2; in FBIS-EAS-95-117, 6/16/95 (13109). *Mainichi Shimbun* (Tokyo), 6/4/95, p. 2; in FBIS-EAS-95-109, 6/4/95 (13109).

**NORTH KOREA WITH PRC AND MULTI-
COUNTRY GROUP**

3/95

The PRC is unsuccessful in its efforts to persuade North Korean officials to accept South Korean-type LWRs despite requests from the U.S. and South Korea to influence North Korea.

Mun Il-hyon, *Chungang Ilbo* (Seoul), 3/23/95, p. 5; in FBIS-EAS-95-101 (13046).

4/25/95

South Korean sources report that the PRC has cautioned North Korea that if it resumes its nuclear program, the PRC will not veto U.N. Security Council sanctions that could be invoked as a result.

Tong-A Ilbo (Seoul), 4/26/95, p. 1; in FBIS-EAS-95-080, 4/26/95 (13046).

5/3/95

Japanese Prime Minister Tomiichi Murayama asks Chinese Premier Li Peng for support in upcoming negotiations between

the U.S. and North Korea on the provision of LWRs to North Korea.

Kyodo (Tokyo), 5/3/95; in FBIS-CHI-95-085, 5/3/95 (12681).

NORTH KOREA WITH RUSSIA

See also North Korea section II KEDO.

4/11/95

South Korean Foreign Minister Kong Nomyong says that Russia can participate in the KEDO project to supply LWRs to the DPRK by supplying uranium fuel for the planned North Korean reactors.

Yonhap (Seoul), 4/11/95; in FBIS-EAS-95-069, 4/11/95 (12992).

4/14/95

Vyacheslav Sychev of the Russian Ministry of Atomic Energy says that the U.S. offered Russia the opportunity to process waste from the LWRs to be constructed in the DPRK as compensation if it cancels its nuclear deal with Iran. However, Russia rejected the offer on the grounds that it was insufficient compensation.

Anatoliy Yurkin, *Itar-Tass* (Moscow), 4/14/95; in FBIS-SOV-95-073, 4/14/95 (12994).

5/26/95

Russia is willing to provide LWRs to North Korea. Russian Vice Minister of Foreign Affairs Alexander Panov says that an international conference should be held to discuss regulation of the nuclear situation on the Korean Peninsula.

Krasnaya Zvezda, 5/26/95, p. 3 (13196).

**NORTH KOREA WITH SOUTH KOREA
AND MULTI-COUNTRY GROUP**

3/23/95

North Korea's official newspaper *Rodong Shinmun* condemns South Korea's 12/94 decision to build a nuclear waste disposal facility on Kurop islet (30 miles from North Korea's maritime border). A South Korean government spokesman responds, noting that the IAEA supports the plan and that North Korea has no reason to object to the facilities, which are "designed to manage safely radioactive waste resulting from the

peaceful use of atomic energy."

Reuter, 3/23/95; in Executive News Service, 3/23/95 (12730).

4/8/95

South Korean Deputy Prime Minister and National Unification Minister Na Ung-pae offers North Korean officials a visit to reactor units 3 and 4 of the Ulchin nuclear plant. Na suggests that North Korea investigate the safety of the South Korean standard LWR. The Ulchin reactor design incorporates approximately 100 modifications to the model provided by ABB Combustion Engineering of the U.S.

Yonhap (Seoul), 4/8/95; FBIS-EAS-95-068, 4/8/95 (13047). *Newsreview* 4/15/95, p. 9 (13047).

6/13/95

South Korea agrees to back the new U.S.-DPRK agreements announced in the Kuala Lumpur joint press statement. Clinton reassures South Korean President Kim Youngsam that a South Korean firm will be the main contractor and primary responsible party in the LWR contract.

Xinhua (Beijing), 6/13/95; in FBIS-CHI-95-113, 6/13/95 (13115).

6/16/95

Following the 6/13/95 U.S.-DPRK joint press statement in Kuala Lumpur, a South Korean Foreign Ministry official says South Korea plans to propose a nuclear cooperation agreement with North Korea which will include measures to ensure against the diversion of nuclear technology and material by the North. Press speculation suggests South Korea will propose the agreement in 1999, to coincide with the first shipments of LWR components to North Korea.

Korea Herald (Seoul), 6/16/95, pp. 2-3; in FBIS-EAS-95-116, 6/16/95 (13054).

**NORTH KOREA WITH SOUTH KOREA
AND UNITED STATES**

3/4/95

South Korean Assistant Foreign Minister Lee Jae-chun says U.S.-South Korean Team Spirit joint military exercises will be resumed if North Korea does not comply with the terms of the U.S.-DPRK 10/21/94 nuclear accord.

Jane's Defence Weekly, 3/4/95, p. 4 (12736).

4/26/95

U.S. State Department spokesman Nicholas Burns says limited U.S.-South Korean military exercises will not be cancelled.

AP; in *Washington Post*, 4/26/95, p. A32 (13007).

4/28/95

North Korea's official newspaper *Rodong Shinmun* says that North Korea may withdraw from the U.S.-DPRK 10/21/95 nuclear agreement in response to joint U.S.-South Korea military training exercises scheduled for mid-5/95.

Washington Times, 4/29/95, p. A9 (13060).

**NORTH KOREA WITH UNITED STATES:
CONGRESSIONAL ISSUES**

3/8/95

The U.S. Senate passes an amendment to the Senate's Pentagon spending bill which will require Congressional approval for aid to North Korea, thereby denying the U.S. administration further access to reprogrammed or emergency funds to implement the U.S.-DPRK 10/21/94 nuclear accord.

Barbara Opall, *Defense News*, 3/20/95-3/26/95, pp. 3, 50 (12721).

3/22/95

The U.S. Senate Foreign Relations Committee passes a resolution outlining how the current U.S. administration should encourage improved relations between North Korea and South Korea in the context of the U.S.-DPRK 10/21/94 nuclear accord. The resolution recommends that a North-South summit and reciprocal inspections of their nuclear facilities be encouraged.

UPI, 3/22/95; in Executive News Service, 3/22/95 (12726).

3/31/95

U.S. House Asian and Pacific Affairs Subcommittee Chairman Doug Bereuter presents a resolution that will impose a set of requirements for implementing improved U.S.-DPRK diplomatic and economic relations under the U.S.-DPRK 10/21/94 nuclear accord. These include opening diplomatic liaison offices and lifting trade sanctions, inter-Korean dialogue and progress on the North-South Joint Declaration on the Denuclearization of the Korean Peninsula.

UPI, 3/22/95; in Executive News Service, 3/22/95 (12726). Yonhap (Seoul), 4/1/95; in FBIS-EAS-95-063, 4/1/95 (12726).

6/8/95

The U.S. House Appropriations subcommittee denies a request for \$9 million under the 1996 U.S. foreign aid bill for LWR construction in North Korea but approves a recommendation for \$10 million to supply crude oil to North Korea and \$3 million to support the administration of KEDO. The U.S. Congress amends the State Department's bill on U.S. policy in North Korea, known as the Gilman bill, to require Congressional notification of future financial contributions to North Korea and KEDO, and to require South Korea to undertake a principal role in the provision of LWRs to North Korea. The amendment calls on the U.S. to seek improved relations between North and South Korea, as well as progress on the North-South Joint Declaration on the Denuclearization of the Korean Peninsula, before further pursuing initial bilateral diplomatic relations with North Korea under the U.S.-DPRK 10/21/94 nuclear accord. The amendment also adds that North Korea must transfer its spent fuel rods to a third country, dismantle its current nuclear program, and allow unrestricted IAEA inspections.

Washington Post, 6/9/95, p. A16 (13116). Yonhap (Seoul), 6/10/95; in FBIS-EAS-95-112, 6/10/95 (13049).

**NORTH KOREA WITH UNITED STATES:
SAFE STORAGE OF SPENT FUEL**

2/95-3/95

Failure of the U.S. House Appropriations Subcommittee on Energy and Water to approve a \$10 million U.S. Department of Energy (DOE) reprogramming request delays U.S. efforts to implement safe storage of North Korea's spent nuclear fuel rods from the Yongbyon nuclear facility. Approval was withheld due to uncertainty about the U.S.-DPRK 10/21/94 nuclear accord. A DOE official says water in the spent fuel basin needs to be treated soon because the filtration system has failed, resulting in a large increase of algae growth, unstable chemical conditions in the basin, and an uncertain rate of corrosion. According to a

DOE official, housing the spent fuel rods in stainless steel canisters and delaying basin water treatment may raise costs since the water will become more contaminated.

Kathleen Hart, *NuclearFuel*, 3/13/95, pp. 7-8 (12724).

5/27/95

According to the Austrian press, nuclear experts are warning that safety concerns may force North Korea to reprocess nuclear fuel rods if there is a collapse in U.S.-DPRK nuclear negotiations. An IAEA spokesman says Agency inspectors have been monitoring the Yongbyon cooling pond daily to ensure that North Korea does not transfer the fuel rods to another facility for reprocessing.

KCNA (Pyongyang), 5/27/95; FBIS-EAS-95-103, 5/27/95 (13048).

6/15/95

U.S. Arms Control and Disarmament Agency Bureau of Nonproliferation Deputy Assistant Director Norman Wulf leads a group of U.S. technical specialists to North Korea to address the clean-up of spent nuclear fuel rods contained in the storage pond at Yongbyon. Representatives from the U.S. Department of Energy (DOE) and U.S. companies Centec Corp. and Nuclear Assurance Corp. (NAC) accompany the team. The Yongbyon storage pond contains 7,200 rods, and an additional 800 are in dry storage due to damage and radiation leaks. North Korea has warned that the fuel rods have been subject to severe erosion under current conditions. The team plans to lower the temperature of the pool to stop algae growth and clarify the water in order to facilitate the clean-up. The rods will be secured in stainless steel canisters, which may arrive in North Korea by the end of 1995. The DOE has awarded NAC International a \$5.8 million contract to perform the operation.

Kathleen Hart, *NuclearFuel*, 6/19/95, p. 15 (13111). Gus Constantine and Stewart Stogel, *Washington Times*, 6/19/95, pp. A1, A22 (13111). Xinhua (Beijing), 6/21/95; in FBIS-CHI-95-119, 6/21/95 (13111).

**NORTH KOREA WITH UNITED STATES:
SHIPMENT OF HEAVY OIL TO
NORTH KOREA**

3/13/95

U.S. Undersecretary of Defense for Policy Walter Slocombe and U.S. Ambassador-at-Large Robert Gallucci concede that North Korea may have diverted a portion of the first heavy oil shipment (provided by the U.S. under the U.S.-DPRK 10/21/94 nuclear accord) for military purposes. U.S. Senate Energy and Natural Resources Committee Chairman Frank Murkowski says that the oil diversion concerns Congress since it is "contrary to the intent of the [U.S.-DPRK] agreement." Gallucci says that North Korea has been informed of U.S. concerns about the oil.

Barbara Opall, *Defense News*, 3/20/95-3/26/95, pp. 3, 50 (12721).

5/18/95

U.S. officials announce they will postpone the second 50,000 ton crude oil shipment to North Korea agreed to under the 10/21/94 U.S.-DPRK nuclear accord until North Korea responds to charges that it diverted part of an earlier shipment. U.S. State Department spokesman Nicholas Burns says that, although the oil was not diverted for military purposes, the next shipment (originally scheduled for 10/95) will not proceed until the DPRK offers clarification. U.S. Secretary of State Warren Christopher says the oil was re-routed to an iron mill.

Akio Takahata, *Mainichi Shimbun* (Tokyo), 5/19/95 (13112). Martin Sieff, *Washington Times*, 5/20/95, pp. A1, A7 (13112).

5/19/95

U.S. State Department spokesman Nicholas Burns reveals that North Korea does not intend to address the charges of oil diversion until a settlement is reached with the U.S. on the supply of LWRs.

Martin Sieff, *Washington Times*, 5/20/95, pp. A1, A7 (13112).

6/17/95-6/24/95

During talks in Pyongyang, the U.S. and North Korea resolve technical details and agree on a mutually acceptable schedule for heavy fuel oil shipments to North Korea

under the U.S.-DPRK 10/21/94 nuclear accord. North Korea agrees to install equipment in storage tanks and oil lines to preclude diversion, and the U.S. agrees to start shipment of 100,000 tons of heavy oil to North Korea in 8/95. Forthcoming oil shipments will be monitored by KEDO.

China Radio International (Beijing), 6/26/95; in FBIS-CHI-95-123, 6/26/95 (13119). *Hanguk Ilbo* (Seoul), 6/28/95, p. 1; in FBIS-EAS-95-124, 6/28/95 (13119). Yonhap (Seoul), 6/30/95; in FBIS-EAS-95-126, 6/30/95 (13119).

6/29/95

U.S. Ambassador-at-Large Robert Gallucci confirms that up to 10,000 tons of a 1/95 shipment of 50,000 of heavy oil to North Korea were diverted from heat and electric-generators to steel production.

Yonhap (Seoul), 6/30/95; in FBIS-EAS-95-126, 6/30/95 (13119).

**NORTH KOREA WITH UNITED STATES:
DIPLOMATIC LIAISON OFFICES**

4/4/95

It is revealed that the U.S. told South Korea it intends to delay opening of U.S.-DPRK diplomatic liaison offices until after 6/95, since there will be linkage between that action and the resolution of discussions between the U.S. and DPRK about the provision of LWRs and about improved relations between North and South Korea. North Korean U.N. Minister Han Song-yol had been scheduled to visit Washington to look at possible locations for a North Korean liaison office.

Yi Pyong-kwang, *Kyonghyang Sinmun* (Seoul), 4/5/95, p. 2; in FBIS-EAS-95-065, 4/5/95 (13066). Yonhap (Seoul), 4/4/95; in FBIS-EAS-95-064, 4/4/95 (13066).

6/22/95

U.S. Ambassador-at-Large Robert Gallucci says the U.S. and North Korea are unlikely to open diplomatic liaison offices by 7/95. He says the offices could be opened in future months, upon resolution of remaining consular and technical questions. U.S.-DPRK talks on liaison offices had been discontinued during negotiations on the supply of LWRs but were expected to resume following the U.S.-DPRK joint press state-

ment in Kuala Lumpur on 6/13/95.

Yonhap (Seoul), 6/23/95; in FBIS-EAS-95-121, 6/23/95 (13118). China Radio International (Beijing), 6/15/95; in FBIS-CHI-95-116, 6/15/95 (13118).

PAKISTAN

INTERNAL DEVELOPMENTS

4/95

At the opening ceremony of Pakistan's National Center for Non-Destructive Testing, Pakistan Atomic Energy Commission (PAEC) Chairman Ishfaq Ahmad Khan comments that Pakistan's nuclear goals include the achievement of self-reliance in the construction of nuclear power plants.

Shahid-ur-Rehman Khan, *Nucleonics Week*, 6/1/95, p. 15 (13138).

4/8/95

Pakistan's new 40 MW heavy water reactor (HWR) project at Khushab, which has been under construction for a few years, will not be completed until at least 1996. Pakistani Prime Minister Benazir Bhutto notes that the reactor is small and will be used for experimental purposes and adds that Pakistan has no facilities to reprocess the plutonium extracted from the reactor into weapons material. Bhutto states, "We have no plans to produce plutonium."

R. Jeffrey Smith and Thomas W. Lippman, *Washington Post*, 4/8/95, p. A20 (12669).

4/19/95

India's External Affairs Minister Pranab Mukherjee states that Pakistan's new reactor at Khushab proves the Indian claim that the NPT fails to prevent the clandestine transfer of sensitive nuclear technology.

Hindu, 4/15/95, p. 1 (12669).

4/19/95

Paul Dibb, head of Australian National University's Strategic and Defence Studies Center, states in an assessment for the International Institute for Strategic Studies (London), that by 2010 Pakistan will have devel-

oped nuclear IRBMs.

Michael Richardson and Cameron Stewart, *Australian*, 4/19/95, pp. 1-2 (12813). *Canberra Times*, 4/21/95, p. 11 (12813).

6/95

A Pakistani Foreign Office spokesman states that although Pakistan was in attendance at the NPT Review and Extension Conference as an observer, it has no intention of signing the treaty until India does.

Ali Abbas Rizvi, *Asian Defence Journal*, 6/95, p. 73 (12884).

6/95

Pakistan seems satisfied with its present nuclear deterrence capabilities, given the absence of "hot" nuclear testing and the relative lack of "cold testing" of the conventional explosives package necessary to detonate a nuclear device.

Harold Hough, *Jane's Intelligence Review*, 6/95, pp. 270-272 (13152).

PAKISTAN WITH INDIA, PRC, AND UNITED STATES

3/3/95

At a conference held in Goa, India, current and former government officials and analysts from India, Pakistan, China, and the U.S. adopt by consensus a document urging all nuclear weapon states to sign an agreement pledging no-first-use of nuclear weapons and no use of nuclear weapons against non-nuclear weapon states.

Hindu, 3/5/95, p. 6 (13010).

PAKISTAN WITH INDIA AND UNITED STATES

3/4/95

Despite progress in bilateral negotiations, Pakistan has made "no definitive response" to the U.S. suggestion that both Pakistan and India unilaterally declare a halt to their nuclear weapons programs. Pakistan is reluctant to respond because of India's refusal to consider the idea and its concern that India has a larger nuclear stockpile.

P.S. Suryanarayana, *Hindu*, 3/4/95, p. 14 (12670).

PAKISTAN WITH IRAN

3/15/95

Western customs and intelligence sources say that Pakistan is actively supporting Iran's smuggling efforts, often acting as a transshipper.

Chris Hedges, *New York Times*, 3/15/95, p. A1 (12672).

5/18/95

A Pakistani Foreign Office spokesman repudiates the allegation that Pakistan has assisted Iran in the nuclear field. The statement is a rebuttal to a recent report in the *Washington Post*, alleging Pakistani Prime Minister Benazir Bhutto has ceased nuclear cooperation with Iran.

PTV Television Network (Islamabad), 5/18/95; in FBIS-TAC-95-003, 5/18/95 (12885).

PAKISTAN WITH IRAN, PRC, AND UNITED STATES

4/17/95

Pakistani Foreign Minister Sardar Asif Ahmad Ali concedes that U.S. staff are employed at Pakistan's Chakwal seismic monitoring center, which was set up primarily to observe Chinese and Iranian nuclear activities.

Khabrain (Islamabad), 4/19/95, p. 10; in FBIS-NES-95-076, 4/19/95 (13149).

PAKISTAN WITH IRAN AND SAUDI ARABIA

3/95

Prince Turki ibn Faycal, head of the Saudi secret services, holds talks with Pakistani Prime Minister Benazir Bhutto. Faycal hopes to convince Pakistan to halt contact with Iran on nuclear activities.

Intelligence Newsletter, 3/30/95, p. 7 (12887).

PAKISTAN WITH LIBYA

6/95

Libyan leader Muammar al-Quadhafi denies that Libya helped finance Pakistan's nuclear weapons program.

Ali Abbas Rizvi, *Asia Defence Journal*, 6/95, p. 73 (12878).

PAKISTAN WITH PRC

4/1/95

China National Nuclear Corporation (CNNC) Vice-President Zhang Huazhou states that the company is making progress on construction of the Chashma nuclear power plant, commissioned by the Pakistan Atomic Energy Commission (PAEC). Work on the plant is set to be finished in 1996, and, according to another source, the plant is scheduled to commence operations in 1998. Zhang also indicates that Chinese firms are capable of providing all the necessary components for the Chashma plant, despite the fact that its design is based on the CNNC's Qinshan 1,300 MW pressurized water reactor (PWR), which received many principal components from Western firms.

Ann MacLachlan, *Nucleonics Week*, 4/27/95, pp. 7-8 (12790). Reuter, 6/8/95; in Executive News Service, 6/8/95 (12817).

4/8/95

Pakistan's construction of a 40 MW reactor at Khushab raises concern among Clinton administration officials, who believe it would result in giving Pakistan access to large amounts of plutonium. Clinton administration officials have attempted to dissuade China and other countries from becoming involved in the Khushab project. However, Pakistani Prime Minister Benazir Bhutto states that the Khushab plant is "tied into our nuclear power plant from China." U.S. officials further note that a partially-built reprocessing plant near the Chinese-supplied reactor at Chashma would be completed within several years and, as an indigenously-produced facility, the heavy water reactor at Khushab would be exempt from international inspections.

R. Jeffrey Smith and Thomas W. Lippman, *Washington Post*, 4/8/95, p. A20 (12669).

PAKISTAN WITH UNITED STATES

3/4/95

Both the U.S. and Pakistan made concessions in the areas of nuclear test monitoring and the production of weapons-grade fissile material at recent negotiations. In an initiative stemming from the 1/95 visit of Secre-

tary of Defense William Perry, the U.S. agrees to reduce its pressure on Pakistan for a "verifiable cap" on the production of weapons-grade fissile material in the country. Instead, the U.S. will settle for Pakistani participation in an international regime on fissile material cut-off. Pakistani Foreign Minister Assef Ali told the Conference on Disarmament (CD) that Pakistan would support the formation of a negotiating group to work out the details of the cut-off. In the area of nuclear test monitoring, the U.S. has provided technical assistance in the construction of a seismic observatory at Chakwal, in Pakistan's Punjab province, in return for access rights to information gathered there. According to the report, the U.S. measures will succeed in applying a non-intrusive verification system to Pakistan's "nuclear weaponization agenda."

P.S. Suryanarayana, *Hindu*, 3/4/95, p. 14 (12670).

4/6/95-4/12/95

Pakistani Prime Minister Benazir Bhutto visits the U.S. to try to persuade the Congress to lift sanctions imposed on Pakistan in 1990 under the Pressler Amendment. Most U.S. congressional leaders are against lifting the sanctions completely, but many say Bhutto argues effectively that the law is discriminatory as it does not address nuclear weapons proliferation in the region. President Clinton points out that the Pressler Amendment sanctions Pakistan for possession of nuclear weapons without addressing the issue of India's nuclear arsenal. Clinton administration officials, however, are concerned that work on Pakistan's nuclear reactor at Khushab will hinder the administration's attempts to convince the U.S. Congress to suspend or modify Pressler Amendment sanctions on Pakistan. Both before and after Bhutto's visit, President Leghari, Bhutto, representatives of the political opposition, and other organizations, reaffirm their commitment to maintaining Pakistan's nuclear option. However, the main opposition party, the Pakistan Muslim League (PLM), presents a resolution stating that Pakistan should not give in to U.S. pressure to sign the NPT or allow inspections of Pakistan's nuclear facilities. Pakistani nuclear scientist Abdul Qadeer Khan claims Pakistan's nuclear program is continuing on

without any changes.

Carol Giacomo, *Reuter*, 4/6/95 (12879). Thomas W. Lippman, *Washington Post*, 4/12/95 (12899). R. Jeffrey Smith and Thomas W. Lippman, *Washington Post*, 4/8/95, p. A20 (12669). *Pakistan* (Islamabad), 4/18/95, p. 10; in FBIS-NES-95-076, 4/18/95 (13143). Nelson Graves, *Reuter*, 4/1/95 (13143). *Frontier Post* (Peshawar), 5/25/95, p. 1; in FBIS-NES-95-105, 5/25/95 (13143). Radio Pakistan Network (Islamabad), 5/25/95; in FBIS-NES-95-102 (13143).

5/6/95

U.S. Senator Larry Pressler warns that any attempt to modify the Pressler Amendment would "strike a serious blow against regional peace and worldwide nuclear non-proliferation." Citing a recent CIA briefing, Pressler expresses doubt about civilian government control over Pakistan's nuclear option.

Washington Post, 4/8/95; in *Asian Recorder*, 4/30/95-5/6/95, p. 24759 (13146). Barbara Opall, *Defense News*, 4/3-9/95, pp. 1, 28 (13146). Gus Constantine, *Washington Times*, 4/13/95, p. A13 (13146).

PEOPLE'S REPUBLIC OF CHINA

INTERNAL DEVELOPMENTS

2/95

Asian intelligence sources indicate China is scheduling five additional nuclear tests before the close of 1996, the projected date for the conclusion of a Comprehensive Test Ban Treaty. Two tests are scheduled for 1995, and three others are planned in 1996. China usually conducts its nuclear tests at the Lop Nor site between mid-May and mid-June or between mid-September and mid-October. China claims the goal of the tests is to guarantee the safety of its nuclear weapons, though outside analysts argue that China's purpose is "modernization" and "miniaturization" of the weapons.

Robert Karniol, *Jane's Defense Weekly*, 4/8/95, p. 3 (13070).

3/30/95

World Association of Nuclear Operators (WANO) Chairman Remy Carle announces that the China National Nuclear Corporation (CNNC), which manages China's Qinshan 300 MW PWR complex southwest of Shanghai, will become a member of WANO at its 4/95 general meeting in Paris.

Ann MacLachlan and Pearl Marshall, *Nucleonics Week*, 3/30/95, pp. 6-7 (12786).

4/6/95

China has promised to use its U.N. Security Council seat to help non-nuclear weapon states if they are attacked with nuclear weapons.

Reuter, 4/5/95; in *Frankfurter Allgemeine Zeitung*, 4/6/95 (13122).

4/10/95

CNNC Vice-President Zhang Huazhu states that nonproliferation policies should not be allowed to "restrict international cooperation" in the nuclear industries of developing countries. Zhang says China has "prudent" nuclear export controls which require assurance of peaceful use, IAEA safeguards, and restrictions on the re-export of Chinese technology.

Ann MacLachlan, *Nucleonics Week*, 4/13/95, pp. 6-7 (12794).

4/12/95

Speaking at the Japan Atomic Industrial Forum's (JAIF) annual conference, CNNC Nuclear Fuel Bureau Chief Engineer Sun Donghui states that China has decided to construct a "multi-purpose reprocessing pilot plant" to begin operation after 2010, with an annual reprocessing capacity of 400 to 800 metric tons of heavy metal (MTHM). The Lanzhou Nuclear Fuel Complex, which will hold 550 MTHM and provide 50 MTHM for research and test reactor fuel, may eventually be "interlinked with an industrial-scale reprocessing plant." According to Sun, separated plutonium would initially serve in mixed-oxide (MOX) fuel for an experimental 25 MWe fast neutron reactor that would be built by the turn of the century, and possibly also in PWRs.

Ann MacLachlan, *Nucleonics Week*, 4/13/95, pp. 6-7 (12794). Ann MacLachlan, *NuclearFuel*, 4/24/95, pp. 15-16 (12794).

4/16/95

CNNC reports that since 1954, China has located uranium deposits in more than 200 mining sites.

Zhongguo Tongxun She (Hong Kong), 4/16/95; in FBIS-CHI-95-102, 4/16/95 (12821).

4/18/95

During an address at the 1995 NPT Review and Extension Conference, Chinese Vice-Premier and Foreign Minister Qian Qichen states that China supports the "smooth" extension of the NPT. Qian indicates China supports either indefinite extension or extension by fixed periods of at least 25 years, and suggests "there should be continued regular reviews of the treaty." Qian also proposes the achievement of a convention "for the complete prohibition and thorough destruction of nuclear weapons under effective international supervision." China's intermediate objectives include legally-binding assurances from the nuclear weapon states of no first-use of nuclear weapons or use of nuclear weapons against non-nuclear weapon states (NNWS), nuclear-weapon-free zones (NWFZ), a Comprehensive Test Ban Treaty (CTBT) by 1996, and a convention prohibiting the manufacture of fissile materials for nuclear weapons.

Barbara Crossette, *New York Times*, 4/19/95, p. A16 (13065). Xinhua (Beijing), 4/18/95; in FBIS-CHI-95-075, 4/18/95 (13065). Zhongguo Xinwen She (Beijing), 4/19/95; in JPRS-TAC-95-013-L, 4/19/95 (13065). Li Jianxiong, Xinhua (Beijing), 5/2/95; in FBIS-CHI-95-086, 5/2/95 (13065).

4/19/95

Paul Dibb, head of Australian National University's Strategic and Defence Studies Center, predicts in an assessment for the International Institute for Strategic Studies (London) that by 2010 China will have nuclear powered submarines armed with nuclear warheads.

Michael Richardson and Cameron Stewart, *Australian*, 4/19/95, pp. 1-2 (12813). *Canberra Times*, 4/21/95, p. 11 (12813).

5/1/95

Chinese Disarmament Ambassador Sha Zukang says that China has never sold uranium enrichment, reprocessing, or heavy water production technologies abroad, and that all of China's nuclear exports are re-

ported to the IAEA.

Xinhua (Beijing), 4/18/95; in FBIS-CHI-95-075, 4/18/95 (13065). Li Jianxiong, Xinhua (Beijing), 5/2/95; in FBIS-CHI-95-086, 5/2/95 (13065).

5/15/95

China conducts a 95 kT underground nuclear test at Lop Nor in Xinjiang shortly after 1:00 p.m. The test takes place four days after the international community decided to extend the NPT indefinitely. A Chinese announcement concerning the test states that China will continue its tests until prevented from doing so by the CTBT. Another statement says more tests are needed for safety reasons.

Ian Black, *Guardian*, 5/16/95 (12853). *Die Welt* (Berlin), 5/16/95, p. 8; in FBIS-TAC-95-003, 5/16/95 (12853). Steven Mufson, *Washington Post*, 5/16/95, p. A13 (13068). Agence France Presse; in *Le Monde*, 5/17/95 (13068).

5/16/95

It is reported that the PRC supports an addition to the CTBT to allow "peaceful" nuclear detonations, and that China refuses to cease production of weapons-grade plutonium and highly-enriched uranium (HEU) in accordance with a fissile material cut-off.

Foreign Report, 5/25/95 (13127). *Iran Brief*, 6/1/95, pp. 10-11 (13127).

PRC WITH CANADA

6/1/95

Within the next four years, Canada's Atomic Energy of Canada Ltd. (AECL) expects to sell two 680 MW CANDU-6 reactors to China.

Nucleonics Week, 6/1/95, p. 14 (12777).

PRC WITH CANADA, RUSSIA, AND UNITED STATES

4/26/95

Chinese officials express interest in diversifying China's supply network for nuclear equipment to include the possible purchase of nuclear reactors from the U.S., Canada, or Russia. The officials have suggested that U.S. reactors would be preferred if U.S. export restrictions can be lifted.

Craig S. Smith, *Wall Street Journal*, 4/26/95, p. A11 (13069).

PRC WITH EGYPT, RUSSIA, AND UKRAINE

6/27/95

It is reported that "responsible sources" said that China, Russia, and Ukraine are among a number of Asian and European countries that have established ties with Egypt to help it construct "a number of nuclear reactors for peaceful purposes."

Al-Sha'b (Cairo), 6/27/95, p. 8; in FBIS-NES-95-130, 6/27/95 (13176).

PRC WITH FORMER SOVIET UNION, IRAN, AND NORTH KOREA

5/95

Iranian exiles residing in Europe say Iran has tunneled into a mountain close to the city of Chalus on the Caspian Sea to create a clandestine nuclear weapons development site. The exiles claim Iran is employing technicians from the former Soviet Union, China, and North Korea at the site.

U.S. News & World Report, 5/1/95, p. 24 (12848).

PRC WITH FRANCE

4/26/95-6/7/95

Recent failures of control rod safety tests at China's Daya Bay-1 nuclear reactor, and signs of similar problems at the Daya Bay-2 unit, both built by France's Framatome, are prompting doubts about the fulfillment of a 1/95 agreement between China and the French company for two additional Daya Bay reactors. Sources indicate the project for the two new Daya Bay reactors may be subject to a call for new bids if financing for the contracts is not completed by 7/15/95. Framatome is also currently finalizing a deal with China to provide two 985 MWe reactors for a project in Lin-ao, but China is having difficulty repaying the loans used for Daya Bay's construction.

Craig S. Smith, *Wall Street Journal*, 4/26/95, p. A11 (13069). *Nuclear Engineering International*, 6/95, p. 3 (13069). Renato Reyes, *Hong Kong Standard* (Hong Kong), 6/7/95, p. 5; in FBIS-CHI-15-109, 6/7/95 (13069).

PRC WITH GERMANY

6/95

German authorities state that the 10 MW high temperature gas-cooled reactor (HTGR) at Changping in China is an "experimental pilot venture," which they expect to go critical in 1998. Nukem, a German firm, has sold equipment for manufacturing highly-enriched uranium to China for its HTGR. Asea Brown Boveri's German division exports a small reactor loop for China's HTGR project.

Mark Hibbs, *Nucleonics Week*, 6/29/95, pp. 7-8 (13130).

PRC WITH INDIA

2/20/95

It is reported that the Indian Nuclear Fuel Complex at Hyderabad has begun processing Chinese-supplied low-enriched uranium for the fueling of the Tarapur Atomic Power Station.

Business Line (Madras), 2/20/95, p. 9; in FBIS-NES-95-038, 2/27/95 (12839).

PRC WITH INDIA, PAKISTAN, AND UNITED STATES

3/3/95

At a conference held in Goa, India, current and former government officials and analysts from India, Pakistan, China, and the U.S. adopt by consensus a document urging all nuclear weapon states to sign an agreement pledging no-first-use of nuclear weapons and no use of nuclear weapons against non-nuclear weapon states.

Hindu, 3/5/95, p. 6 (13010).

PRC WITH INDONESIA AND JAPAN

5/2/95

Japan's Ministry of International Trade and Industry (MITI) and Natural Resources and Energy Agency (NREA) are planning to send a survey team to China and Indonesia as a prelude to exporting nuclear power plant components and supplying nuclear safety technology. MITI will assist in establishing

safety and operating regulations as well as oversee transfers of nuclear technology and components required for the power plants. Science and Technology Agency (STA) Director General Makiko Tanaka will later chair an Atomic Energy Commission (AEC) committee to ensure that nuclear technology components and transfers do not develop into a proliferation concern.

Nihon Keizai Shimbun (Tokyo), 5/21/95, Morning Edition, p. 1; in FBIS-EAS-95-101, 5/21/95 (12809).

PRC WITH IRAN

6/7/94

Iran's Interior Minister Ali Besharati announces that a number of kidnappings occurred, with a Chinese nuclear technician and two Iranian employees of the Atomic Energy Organization (AEOI) among the victims. In a later statement, Besharati says AEOI had employed the Chinese technician to work at the Rudan uranium plant "located near the town of Fasa in the Shiraz region." According to U.S. officials, Fasa is the site of a Chinese-constructed uranium hexafluoride plant. These developments were reported in the 6/1/95 edition of *Iran Brief*.

The Iran Brief, 6/1/95, p. 11 (12881).

2/17/95

Iran informs China's CAS Institute of Plasma Physics that the HT-6B Tokamak nuclear fusion research reactor at Azad University in Tehran "achieved successful discharge" with a time of approximately 20 milliseconds. The HT-6B Tokamak was transferred from the Chinese institute to Iran's Azad University under a 2/93 agreement which provided two teams of Chinese scientists and engineers to Iran to help install and debug the facility. China and Iran are expected to proceed with cooperative research in nuclear fusion technology.

Cheng Yan, *Zhongguo Kexue Bao* [Chinese Science News] (Beijing), 3/8/95, p. 1; in JPRS-CST-95-006, 3/8/95 (12689).

4/10/95-4/17/95

U.S. Secretary of State Warren Christopher meets with Chinese Foreign Minister Qian Qichen and fails to convince him that China should not sell two 300 MW pressurized water reactors (PWR) to Iran. Qian consents

to further U.S.-Chinese expert-level talks on the Iranian issue, but does not say that China will cancel nuclear exports to Iran. During the week of 4/10/95, the U.S. State Department shares an intelligence report with Chinese officials that contains evidence of Iran's attempts to purchase enriched uranium in the CIS, its imports of nuclear equipment from Europe, and its use of smuggling methods similar to those of Iraq and Pakistan for a nuclear weapons program. Qian, however, states that China's nuclear cooperation is legal and "peaceful" and says that all transactions with Iran will be subject to IAEA safeguards. According to U.S. officials, the possible transfer of nuclear reactors and associated technology from China to Iran will include equipment to manufacture nuclear fuel rods. A reactor transfer from China will not include all of the necessary technology, which Iran will have to seek from other countries such as Japan and Germany. However, both Germany and Japan have agreed to withhold transfers of nuclear technology to Iran.

Elaine Sciolino, *New York Times*, 4/18/95, pp. A1, A6 (12792). R. Jeffrey Smith, *Washington Post*, 4/18/95, p. A13 (12792). Gao Jian, *Xinhua* (Beijing), 4/17/95; in FBIS-CHI-95-075, 4/18/95 (12792).

5/16/95

China finalizes a 1992 agreement to provide Iran with two 300 MW nuclear reactors. The reactors, estimated to cost \$800-900 million, are likely to be located at Darkhovin.

Foreign Report, 5/25/95 (13127). *Iran Brief*, 6/1/95, pp. 10-11 (13127).

PRC WITH IRAN, PAKISTAN, AND UNITED STATES

4/17/95

Pakistani Foreign Minister Sardar Asif Ahmad Ali concedes that U.S. staff are employed at Pakistan's Chakwal seismic monitoring center, which was set up primarily to observe Chinese and Iranian nuclear activities.

Khabrain (Islamabad), 4/19/95, p. 10; in FBIS-NES-95-076, 4/19/95 (13149).

PRC WITH IRAQ

4/19/95

Israeli Labor Party Secretary-General Nisim Zvili states that during a meeting in Beijing, he and Knesset member Ori Or failed to convince the Chinese President to terminate a deal to provide nuclear power plants to Iraq. [It is likely that the reference to the PRC-Iraq nuclear power plant sale is actually the PRC-Iran power reactor deal.]

Qol Yisra'el (Jerusalem), 4/19/95; in FBIS-NES-95-076, 4/19/95 (13227).

PRC WITH JAPAN

3/95

A Japanese Ministry of International Trade and Industry (MITI) mission to China prompts Associated Press reports that Japan offered technical assistance to China for the construction of a pilot reprocessing plant.

Nuclear News, 4/95, p. 18 (12794).

5/22/95

Japanese government spokesman Kozo Igarashi states that grant aid to China will be reduced due to recent Chinese nuclear testing. In 1994, China received \$91.8 million in grants which constituted 3 percent of Japan's grant aid program. The revised grant amounts are yet to be negotiated.

Washington Post, 5/23/95, p. A12 (12826).

5/24/95

An editorial characterizes Japan's reduction of grant aid to China (7.8 billion yen in 1994) in order to protest Chinese nuclear testing as ineffectual. Japan makes greater economic contributions to China through its yen loan programs, totalling 1.619 trillion yen in 1995. The new total, including the 580 billion yen pledged for disbursement in 1996, is 2.199 trillion yen, constituting 50 percent of all aid accepted by the PRC.

Sankei Shimbun (Tokyo), Morning Edition, 5/24/95, p. 2; in FBIS-EAS-95-104, 5/31/95 (12811).

PRC WITH NORTH KOREA AND MULTI-COUNTRY GROUP

3/95

The PRC is unsuccessful in its efforts to persuade North Korean officials to accept South Korean-type LWRs when requested by the U.S. and South Korea to influence North Korea.

Mun Il-hyon, *Chungang Ilbo* (Seoul), 3/23/95, p. 5; in FBIS-EAS-95-101 (13046).

4/25/95

South Korean sources report that the PRC has cautioned North Korea that if it resumes its nuclear program, the PRC will not veto U.N. Security Council sanctions that could be invoked as a result.

Tong-A Ilbo (Seoul), 4/26/95, p. 1; in FBIS-EAS-95-080, 4/26/95 (13046).

5/3/95

Japanese Prime Minister Tomiichi Murayama asks Chinese Premier Li Peng for support in upcoming negotiations between the U.S. and North Korea on the provision of LWRs to North Korea.

Kyodo (Tokyo), 5/3/95; in FBIS-CHI-95-085, 5/3/95 (12681).

PRC WITH PAKISTAN

4/1/95

China National Nuclear Corporation (CNNC) Vice-President Zhang Huazhou states that the company is making progress on construction of the Chashma nuclear power plant, commissioned by the Pakistan Atomic Energy Commission (PAEC). Work on the plant is set to be finished in 1996, and according to another source, the plant is scheduled to commence operations in 1998. Zhang also indicates that Chinese firms are capable of providing all the necessary components for the Chashma plant, despite the fact that its design is based on the CNNC's Qinshan-1 300 MW pressurized water reactor (PWR), which received many principal components from Western firms.

Ann MacLachlan, *Nucleonics Week*, 4/27/95, pp. 7-8 (12790). Reuter, 6/8/95; in Executive News Service, 6/8/95 (12817).

4/8/95

Pakistan's construction of a 40 MW reactor at Khushab raises concern among Clinton administration officials, who believe it would result in giving Pakistan access to large amounts of plutonium. Clinton administration officials have attempted to dissuade China and other countries from becoming involved in the Khushab project. However, Pakistani Prime Minister Benazir Bhutto states that the Khushab plant is "tied into our nuclear power plant from China." U.S. officials further note that a partially-built reprocessing plant near the Chinese-supplied reactor at Chashma would be completed within several years and, as an indigenously-produced facility, the heavy water reactor at Khushab would be exempt from international inspections.

R. Jeffrey Smith and Thomas W. Lippman, *Washington Post*, 4/8/95, p. A20 (12669).

PRC WITH RUSSIA

5/95

It is announced that Russia will help finance, build, and operate a new nuclear power plant in China. Russia, the China Nuclear Investment Company, the Liaoning provincial government, and the Northeast China Power Group will invest a total of 27 billion yuan in the project. Russia will assemble technical equipment, and China's Second Nuclear Power Research Institute and the Northeast China Electricity Institute will construct the plant. When completed, the power plant will be equipped with four reactors. During the first phase of construction, two 1,000 MW VVER-1000 pressurized steam turbine reactors will be completed at the plant site.

Aleksandr Romanov, Itar-Tass (Moscow), 5/5/95; in FBIS-SOV-95-087, 5/5/95 (13083). *Zhongguo Xinwen She* (Beijing), 5/5/95; in FBIS-CHI-95-088, 5/5/95 (13083). Xinhua (Beijing), 5/5/95; in FBIS-CHI-95-087, 5/5/95 (13083). Aleksandr Koretskiy, *Kommersant Daily* (Moscow), 5/7/95, p. 4; in FBIS-SOV-95-105-S, 6/1/95, p. 10 (13193).

6/95

Premier of the Chinese State Council Li Peng will meet with Russian President Boris Yeltsin to discuss the expansion of Russian-Chinese cooperation in power generation and nuclear production. The two leaders are

also expected to discuss the "problem of nuclear tests."

Aleksandr Korzun, Igor Porshnev, Yevgeniy Terekhov, and others, *Interfax (Moscow)*, 6/22/95; in FBIS-SOV-95-121, 6/22/95 (12906).

6/15/95

Russia and China have been engaged in discussions on nuclear cooperation. Russian assistance to China "envisages the construction of a uranium enrichment plant," the agreement for which was signed in 3/94. China's decision to import enrichment technology from Russia stems from the fact that Russia produces "small but cheap and reliable gas centrifuges," which can be integrated into facilities containing "many thousands of units." Upon completion of the first phase of the Chinese project in 11/96, the facility will have the capacity to produce 200,000 separative work units (SWU) annually. This capacity is expected to increase to 500,000 SWU by 1998 and eventually to 1 million SWU. Although the enrichment facilities have potential military value, the project has elicited only "routine" protest from the West, which can be attributed to China's nuclear weapon state status.

Sergei Mushkaterov and Yuriy Rogozhin, *Izvestiya (Moscow)*, 6/15/95, p. iv (13001). Ministry of Atomic Energy (Russia); in *ENS NucNet*, 3/21/94 (11165).

PRC WITH SOUTH KOREA AND MULTI-COUNTRY GROUP

3/3/95-3/8/95

At the International Conference for Nuclear Cooperation in Asia, China National Nuclear Corporation (CNNC) Executive Vice-President Chen Zhaobo says the Chinese government has approved a proposal to study construction of two additional 900 MW pressurized water reactors (PWR) for the Daya Bay nuclear facility to be financed abroad and built with imported equipment. According to Chen, construction of two 800 MW PWRs for the second phase of the Qinshan nuclear facility will proceed in 5/95, with the project to be completed sometime around the turn of the century. France, Japan, South Korea, Spain, the U.K., and the U.S. have been negotiating to bid on construction at Qinshan, although 70 percent of the equip-

ment will be supplied by domestic firms.

Atoms In Japan, 3/95, pp. 4-7 (12793).

PRC WITH TAIWAN

6/8/95

It is reported that the Taiwan Power Company (Taipower) and the China National Nuclear Corporation (CNNC) are conducting unofficial negotiations to establish a repository for Taiwanese spent nuclear fuel on Chinese soil. The next meeting is scheduled for 7/95. Since China views any Taiwanese capacity to build atomic weapons as a threat, China's interests would be served by the storage of, and control over, Taiwanese wastes for up to 50 years. Taiwan must have permission from the U.S. before shipping wastes to a third country, and it is expected that the U.S. will consent only to the export of low level wastes, free of any enriched uranium or plutonium.

Foreign Report, 6/8/95 (13128).

PRC WITH UNITED KINGDOM

4/95

The U.K.'s British Nuclear Fuels plc (BNFL) announces plans to open a branch office in Beijing to address business opportunities that will result from the 30 new Chinese reactors planned for construction by 2020.

Pearl Marshall, *NuclearFuel*, 6/5/95, p. 15 (13126).

PRC WITH UNITED STATES

2/22/95

U.S. company ABB Combustion Engineering (ABB-CE) and the China National Nuclear Corporation (CNNC) sign an accord allowing a joint economic and technical feasibility study on prospects for the use of ABB-CE nuclear power technology in China. The agreement is completed during U.S. Secretary of Energy Hazel O'Leary's mission to China. ABB-CE says it is trying to encourage the U.S. government to ease current restrictions on the export of nuclear power equipment to China. O'Leary said the U.S. and China could "work together to

overcome the obstacles" that would "allow expanded nuclear cooperation to go forward."

Nuclear Engineering International, 4/95, p. 9 (12687). Kathleen Hart, *Nucleonics Week*, 3/2/95, pp. 8-9 (13067).

3/21/95

The U.S.'s Westinghouse Electric Corporation announces it has augmented its 2/95 agreement with the China Nuclear Energy Industry Corporation (CNEIC) to include reactor coolant pumps and related motors, as well as engineering, management, and quality assurance services for the project's four steam generators. Under the original agreement, Westinghouse was to provide two 650 MW steam turbines to China for the construction of two 600 MW pressurized water reactors (PWRs) at Qinshan which are expected to be in use by 2002. Foreign companies licensed by Westinghouse, including Spain's Equipos Nuclear S.A., Shanghai Boiler Company, Japan's Mitsubishi Heavy Industries, and Shen Yang Pump Company, will produce the steam generators and reactor equipment due to the U.S. government's ban on the export of dual-use nuclear items to China.

Richard R. Zuercher, *Nucleonics Week*, 3/23/95, pp. 1-2 (13067). Dennis Wamsted, *Energy Daily*, 3/24/95, pp. 1, 4 (13067).

4/10/95-4/11/95

During a high-level meeting, U.S. Secretary of State Warren Christopher and Chinese Foreign Minister Qian Qichen agree that the U.S. and China should consult at regular intervals on the topic of nuclear nonproliferation. Both Qian and Christopher approve of U.S.-Chinese talks regarding fulfillment of the 1985 Sino-U.S. nuclear cooperation accord, and indicate a second set of discussions on U.S.-Chinese cooperation in the application of peaceful nuclear technology should take place in mid-1995.

Elaine Sciolino, *New York Times*, 4/18/95, pp. A1, A6 (12792). R. Jeffrey Smith, *Washington Post*, 4/18/95, p. A13 (12792). Gao Jian, *Xinhua (Beijing)*, 4/17/95; in FBIS-CHI-95-075, 4/18/95 (12792).

5/28/95

China freezes nuclear nonproliferation negotiations with the U.S. in response to the U.S. granting Taiwanese President Lee

Teng-hui permission to travel in the U.S. The U.S.-China talks include the implementation of a bilateral agreement for cooperation in achieving an international fissile material cut-off convention. In addition, the Chinese Foreign Ministry announces it is postponing 6/95 and 7/95 scheduled visits to China by U.S. Arms Control and Disarmament Agency Director John Holum and a U.S. deputy assistant secretary of state for politico-military affairs.

Tony Walker, *Financial Times*, 5/29/95, pp. 1, 14 (13064).

SOUTH AFRICA

INTERNAL DEVELOPMENTS

4/6/95

Tielman de Waal, managing director of South Africa's state-owned armaments manufacturer, Armscor, discloses that South Africa had not received information about nuclear weapons technology from Israel or any other country, although he noted that other countries may have supplied industrial tools, such as lathes, that were used in the weapons program. However, the foreign companies would not have been aware of the end-use of the equipment in these cases, he adds. Approximately 800 people, including scientists and politicians, knew of South Africa's nuclear program.

Reuter, 4/6/95 (12719).

5/95

The Atomic Energy Corporation's uranium enrichment plant at Pelindaba in South Africa is slated for closure on 4/1/95, a year ahead of schedule. Previously the plant had provided the Koeberg reactor with uranium to off-set a U.S. embargo on uranium exports to South Africa.

Nuclear Engineering International, 5/95, p. 12 (13169).

5/29/95

Rusty Evans, South Africa's Foreign Affairs Director General, remarks that the main un-

resolved point in drafting an African Nuclear Free Zone treaty is the mapping of the zone. The draft treaty is expected to be finished and awaiting the endorsement of the African heads of state by the end of 6/95, and in front of the U.N. General Assembly by the end of 1995. South Africa actively supports the development and implementation of the treaty.

SAPA (Johannesburg), 5/29/95; in JPRS-TAC-95-002, 5/29/95 (13154). Reuter, 6/2/95 (13154). Linda Ensor, *Business Day* (Johannesburg), 4/18/95, p. 2; in JPRS-TAC-95-013-L, 4/18/95 (13154).

4/95-5/95

At the 1995 NPT Review and Extension Conference, South Africa is instrumental as the chief mediator between the Non-Aligned Movement and the nuclear powers. Sri Lankan Ambassador to the U.S. and NPT Conference President Jayantha Dhanapala says on 6/7/95 that "the moral stature that South Africa has by virtue of its having come out of the dark ages of apartheid [and] having destroyed its nuclear weapons gives it tremendous influence." The U.S., along with a majority of the 178 signatories to the NPT, backs South Africa's proposal for an indefinite extension of the NPT. Apart from an indefinite extension of the NPT, the South African proposal calls for periodic evaluation and increased responsibility by participant nations.

Jeff Erlich and Theresa Hitchens, *Defense News*, 6/12-18/95, pp. 1, 66 (13162). SAfm Radio Network (Johannesburg), 5/6/95; in JPRS-TAC-95-013-L, 5/6/95 (13162).

SOUTH AFRICA WITH IRAN

3/95

U.S. officials maintain that nuclear cooperation was discussed when South African Energy Minister Pik Botha led a delegation to Tehran in 3/95, although intelligence sources indicate that South Africa has not given Iran any nuclear technology or information.

Sunday Times, 4/23/95 (13159).

SOUTH AFRICA WITH LIBYA

4/7/95

Commenting on reports of South African scientists in Libya, Tielman de Waal, man-

aging director of South Africa's state-owned armaments manufacturer, Armscor, declares that "the names of our nuclear scientists are limited to avoid foreign governments coming in and recruiting them." In 1994, the head of South Africa's intelligence services reported that foreign agents had tried to recruit South African nuclear scientists.

Reuter, 4/6/95 (12719).

SOUTH AFRICA WITH NAMIBIA

5/16/95

In a raid near Cape Town, South African police retrieve 45 lbs of uranium oxide believed to be part of the nearly 3,160 lbs of uranium oxide stolen in 1991 from the Rossing uranium mine in Namibia.

Daily Telegraph, 5/16/95 (13160).

SOUTH AFRICA WITH UNITED STATES

6/95

It is reported that the U.S. considered pressuring South Africa to support the U.S. position at the NPT Extension and Review Conference by revoking the invitation to join the Nuclear Suppliers Group (NSG) and threatening to terminate nuclear cooperation. The reports are denied by both U.S. and South African officials.

Peter Fabricius, *Star* (Johannesburg), 4/19/95, p. 12; in JPRS-TAC-95-013-L, 4/19/95 (13162).

SOUTH KOREA

INTERNAL DEVELOPMENTS

2/8/95

South Korea's 30 MWt High-flux Advanced Neutron Application Reactor (Hanaro) reaches criticality after receiving its first load of fuel on 2/2/95. The "open tank in pool" research reactor is expected to fulfill multiple materials testing needs. Hanaro will be used for testing fuel and structural mate-

rials for CANDU reactors and pressurized water reactors (PWRs), producing radioisotopes, and providing groundwork for the future export of nuclear reactor technology from South Korea. Hanaro is the main facility at a research center that includes irradiated materials testing facilities and a radioisotope building.

Nuclear Engineering International, 4/95, p. 9 (13072).

3/95

Diplomatic contacts in Tokyo state that South Korea is expected to participate in the London Club Guidelines (or NSG) as early as fall 1995. After receiving encouragement to join by visiting delegations from Australia, Spain, and the U.S., South Korea states that several legislative steps have to be executed before it joins the agreement.

Hisane Masaki, *Japan Times*, 3/16/95 (13124).

4/95

In 1995, geological surveys and an environmental impact assessment will be conducted on South Korea's Kurop Island (Kurop-do) where the government plans to build a storage facility to hold low- and medium-level waste (LLW/MLW) by 2001. Nuclear officials indicate that the island may not be large enough for the plant's full capacity, expected to eventually hold 250,000 200-liter drums of nuclear waste.

Ann MacLachlan, *Nucleonics Week*, 4/13/95, pp. 5-6 (13062).

4/15/95-4/17/95

A South Korean foreign ministry official states that the Republic of Korea supports the indefinite extension of the NPT and the conclusion of the Comprehensive Test Ban Treaty (CTBT). On 4/17/95, South Korean Ambassador Pak Su-kil reiterates his country's position to the NPT Extension and Review Conference in New York.

Kim Sung-yong, *Choson Ilbo* (Seoul), 4/16/95, p. 2; in FBIS-EAS-95-073, 4/16/95 (13121). Yonhap (Seoul), 4/20/95; in FBIS-EAS-95-076, 4/20/95 (13121).

SOUTH KOREA WITH CANADA

6/1/95

Within the next four years, Canada's Atomic Energy of Canada Ltd. (AECL) expects to sell two 950 MW CANDU-9 units to [South] Korea. According to Reid Morden, President and Chief Executive Officer of AECL, the Canadian government's \$400 million investment in CANDU technology was profitably recovered by sales of \$800 million worth of CANDU reactors to [South] Korea and Romania.

Nucleonics Week, 6/1/95, p. 14 (12777).

SOUTH KOREA WITH NORTH KOREA AND MULTI-COUNTRY GROUP

See also North Korea section.

3/23/95

North Korea's official newspaper *Rodong Shinmun* condemns South Korea's 12/94 decision to build a nuclear waste disposal facility on Kurop Island (30 miles from North Korea's maritime border). A South Korean government spokesman responds, noting that the IAEA supports the plan and that North Korea has no reason to object to the facilities, which are "designed to manage safely radioactive waste resulting from the peaceful use of atomic energy."

Reuter, 3/23/95; in Executive News Service, 3/23/95 (12730).

4/8/95

South Korean Deputy Prime Minister and National Unification Minister Na Ung-pae offers North Korean officials a visit to reactor units 3 and 4 of the Ulchin nuclear plant. Na suggests that North Korea investigate the safety of the South Korean standard LWR. The Ulchin reactor design incorporates approximately 100 modifications to the model provided by ABB Combustion Engineering of the U.S.

Yonhap (Seoul), 4/8/95; FBIS-EAS-95-068, 4/8/95 (13047). *Newsreview* 4/15/95, p. 9 (13047).

6/13/95

South Korea agrees to back the new U.S.-DPRK agreements announced in the Kuala Lumpur joint press statement. Clinton reas-

ures South Korean President Kim Young-sam that a South Korean firm will be the main contractor and primary responsible party in the LWR contract.

Xinhua (Beijing), 6/13/95; in FBIS-CHI-95-113, 6/13/95 (13115).

6/16/95

Following the 6/13/95 U.S.-DPRK joint press statement in Kuala Lumpur, a South Korean Foreign Ministry official says South Korea plans to propose a nuclear cooperation agreement with North Korea which will include measures to ensure against the diversion of nuclear technology and material by the North. Press speculation suggests South Korea will propose the agreement in 1999, to coincide with the first shipments of LWR components to North Korea.

Korea Herald (Seoul), 6/16/95, pp. 2-3; in FBIS-EAS-95-116, 6/16/95 (13054).

SOUTH KOREA WITH NORTH KOREA AND UNITED STATES

3/4/95

South Korean Assistant Foreign Minister Lee Jae-chun says U.S.-South Korean Team Spirit joint military exercises will be resumed if North Korea does not comply with the terms of the U.S.-DPRK 10/21/94 nuclear accord.

Jane's Defence Weekly, 3/4/95, p. 4 (12736).

4/26/95

U.S. State Department spokesman Nicholas Burns says limited U.S.-South Korean military exercises will not be cancelled.

AP; in *Washington Post*, 4/26/95, p. A32 (13007).

4/28/95

North Korea's official newspaper *Rodong Shinmun* says that North Korea may withdraw from the U.S.-DPRK 10/21/95 nuclear agreement in response to joint U.S.-South Korea military training exercises scheduled for mid 5/95.

Washington Times, 4/29/95, p. A9 (13060).

SOUTH KOREA WITH PRC

3/3/95-3/8/95

At the International Conference for Nuclear Cooperation in Asia, China National Nuclear Corporation (CNNC) Executive Vice-President Chen Zhaobo says the Chinese government has approved a proposal to study construction of two additional 900 MW pressurized water reactors (PWR) for the Daya Bay nuclear facility to be financed abroad and built with imported equipment. France, Japan, South Korea, Spain, the U.K., and the U.S. have been negotiating to bid on construction at Qinshan, although 70 percent of the equipment will be supplied by domestic firms.

Atoms In Japan, 3/95, pp. 4-7 (12793).

SOUTH KOREA WITH UNITED STATES

3/29/95

The Korean Electric Power Corporation (KEPCO) and U.S.-based ABB Combustion Engineering (ABB-CE) reveal a \$200 million agreement for the provision of System 80 engineering design and components for the construction of the Yonggwang-5 and Yonggwang-6 nuclear reactors, expected to begin operation in 6/01 and 6/02. This agreement is part of a 1987 10-year sole-source contract between KEPCO and ABB-CE. ABB-CE Vice President for Engineering Regis Matzei says the main engineering design work has already been completed for the Yonggwang-5 and -6 plants, although ABB-CE is still providing training to KEPCO and other South Korean companies. ABB-CE and KEPCO are also expected to complete construction of the Ulchin-3 and Ulchin-4 nuclear reactors in South Korea in 1998 and 1999. South Korea plans to operate a total of 23 nuclear reactors by 2006, including the nine reactors already operating. South Korea has received expertise from about 120 ABB-CE engineers, as well as U.S. fabricated equipment, such as reactor internals, instrumentation, and control systems for its nuclear reactor projects. ABB-CE and South Korean companies may begin cooperating to export nuclear reactors on the international market after the 1987

contract expires in 1997.

Wilson Dizard III, *Nucleonics Week*, 4/6/95, pp. 1-2 (13071). *The Korea Herald* (Seoul), 4/7/95; in FBIS-EAS-95-069, 4/7/95 (13071).

3/31/95

South Korea's Yonggwang-3 1000 MW nuclear reactor enters commercial operation. Yonggwang-3 is the first nuclear reactor built in South Korea to adapt the U.S. company ABB-CE's System 80 design under the management of KEPCO. It is also the first South Korean reactor project to designate South Korean companies as main contractors in place of Westinghouse, Framatome, or Atomic Energy of Canada Ltd. (AECL). Korea Heavy Industries & Construction Co. (Hangjung) built the nuclear steam supply system and the single turbine generator for the reactor in cooperation with U.S. companies ABB-CE Engineering and General Electric. The Korea Atomic Energy Research Institute (KAERI) worked with ABB-CE to provide the nuclear steam supply system and initial core design, while Korea Power Engineering Co. (KOPEC) and U.S. associate Sargent & Lundy were the architect/engineers for the project. Hyundai Engineering & Construction Co. Ltd. fulfilled construction needs and Korea Nuclear Fuel fabricated fuel for the project. South Korea's Yonggwang-4 1000 MW nuclear reactor is expected to be loaded with fuel in 8/95 and to commence commercial operation in 3/96. The total construction cost of the Yonggwang-3 and Yonggwang-4 reactors is estimated at around \$4.4 billion.

Wilson Dizard III, *Nucleonics Week*, 4/6/95, pp. 1-2 (13071). *Nuclear Engineering International*, 4/95, p. 8 (13071). *The Korea Herald* (Seoul), 4/7/95; in FBIS-EAS-95-069, 4/7/95 (13071).

6/5/95

The Korean Science and Technology Minister Chong Kun-mo signs a nuclear regulatory cooperation agreement with U.S. Nuclear Regulatory Commission (NRC) Chairman Ivan Selin entitled, "Arrangements Between the U.S. NRC and the Ministry of Science and Technology of the Republic of Korea for the Exchange of Technical Information and Cooperation in Regulatory and Safety Research Matters."

Yonhap (Seoul), 6/5/95; in FBIS-EAS-95-107, 6/5/95 (12851).

SOUTH KOREA WITH VIETNAM

4/13/95

South Korean Minister of Trade Pak Chaeyun, Vietnamese Minister of Trade Le Van Triet, and Vietnamese Foreign Minister Nguyen Manh Cam verbally commit to South Korean assistance in building one or two 1,000 MW nuclear reactors for Vietnam at a cost between \$2.7 and \$3 billion.

Voice Of Vietnam (Hanoi), 4/13/95; in FBIS-EAS-95-072, 4/13/95 (13132). *NewsReview*, 4/22/95, p. 5 (13132).

SPAIN

SPAIN WITH IRAN

3/95

After "an informal exchange of views," the U.S. refuses to give its approval to German and Spanish nuclear sales to Iran. Spain is said to be "still actively considering" dealing with Iran.

Mark Hibbs, *Nucleonics Week*, 3/30/95, p. 10 (12890).

SPAIN WITH PRC

3/3/95-3/8/95

At the International Conference for Nuclear Cooperation in Asia, China National Nuclear Corporation (CNNC) Executive Vice-President Chen Zhaobo says the Chinese government has approved a proposal to study construction of two additional 900 MW pressurized water reactors (PWR) for the Daya Bay nuclear facility to be financed abroad and built with imported equipment. France, Japan, South Korea, Spain, the U.K., and the U.S. have been negotiating to bid on construction at Qinshan, although 70 percent of the equipment will be supplied by domestic firms.

Atoms In Japan, 3/95, pp. 4-7 (12793).

SPAIN WITH UNITED STATES

3/13/95

Spain's waste agency Enresa plans to utilize Nuclear Assurance Corporation (NAC) technology to manufacture metal casks for use in both the storage and shipment of spent fuel. The cask design is based on the U.S. company NAC's Storage Transportable Cask. Architect-engineer Empresarios Agrupados, the Virginia Power Company, and the Electric Power Research Institute assisted in the cask's development.

Ann MacLachlan, *NuclearFuel*, 3/13/95, pp. 13-14 (12718).

SYRIA

INTERNAL DEVELOPMENTS

4/7/95

Syrian Foreign Minister Farouk al-Shara'a says the Arab countries will not join the NPT if Israel does not sign it [Note: Syria is already an NPT signatory].

Dalal Saoud, UPI, 4/7/95 (13221).

SYRIA WITH ISRAEL

5/30/95

Israeli political sources express concern that Syria may press for Israel's nuclear weapons capability and its refusal to accede to the NPT to be included on the agenda of security talks scheduled to commence in 6/95.

Ma'ariv (Tel Aviv), 5/31/95; in FBIS-NES-95-104, 5/31/95 (13215).

SYRIA WITH RUSSIA AND UNITED STATES

3/31/95

Russian Foreign Minister Andrei Kozyrev says that he does not expect the U.S. to object to Russia's agreement to assist in the

construction of a nuclear power plant in Syria. Kozyrev says that the project will be carried out under IAEA supervision.

Dmitriy Gorokhov and Anatoliy Golovastov, Itar-Tass (Moscow), 3/31/95; in FBIS-SOV-95-063, 3/31/95 (12910).

TAIWAN

INTERNAL DEVELOPMENTS

4/26/95

While repudiating news reports claiming Taiwan possesses biological weapons, a Taiwanese Defense Ministry official says Taiwan has no intention of ever building nuclear weapons.

Chung-Yang Jih-Pao (Taipei), 4/27/95, p. 4; in FBIS-CHI-95-082, 4/27/95 (12789).

5/3/95

The Taiwanese Foreign Affairs Ministry announces that it advocates the indefinite extension of the NPT, although Taiwan "regretted" its presence was not requested at the 1995 NPT Review and Extension Conference. Taiwan appeals to the nuclear weapon states to accelerate negotiations on nuclear disarmament and to encourage the formation of nuclear-weapon-free zones. The ministry indicates that Taiwan would also like to see the NPT become universal.

Lilian Wu, Taipei CNA, 5/4/95; in FBIS-CHI-95-086, 5/4/95 (12791).

6/16/95

Taiwan's AEC approves the conversion of the Nuclear Energy Research Institute's 40 MW heavy water reactor (HWR) (inoperative since 1/88) into a 20 MW light water reactor (LWR). The AEC plans to contract domestic companies to design and build the new core, and will utilize domestic and foreign components.

Lien-Ho Pao (Taipei), 6/17/95, P. 7; in FBIS-CHI-95-120, 6/17/95 (12852).

6/29/95

Funds for Taiwan Power Company's

(Taipower's) nuclear reactor construction are now subject to debate by the full legislature of the Taiwanese government. The debate centers around a Taipower call for tenders to the Lungmen project that was cancelled when the bids surpassed Taipower's limit. A second round of commercial bidding for construction awards is set to begin 6/95, with Taipower planning to announce the winning firm in early 1996.

Donald Shapiro, *Nucleonics Week*, 6/29/95, pp. 5-6 (13135).

TAIWAN WITH FRANCE

6/1/95

The Taiwanese cabinet endorses a five-year Taiwan-France accord on peaceful uses of nuclear energy that will allow France to sell nuclear equipment and facilities to Taiwan. Prior to this agreement, the U.S. was the only country that could sell Taiwan nuclear power equipment.

CNA (Taipei), 6/1/95; in FBIS-CHI-95-105, 6/1/95 (12819).

TAIWAN WITH FRANCE AND UNITED STATES

5/95

The Taiwan Power Company (Taipower) discontinues efforts to conclude a turnkey-type contract for construction of two 1,300 MW reactors for the Lungmen nuclear power plant and instead invites new bids based on component procurement. Taipower hopes to complete the bidding process by 12/95. Taipower failed in 4/95 to grant a contract for the Lungmen project to either Westinghouse/NE or ABB-CE of the U.S. because the companies' opening bids exceeded Taipower's price ceiling of 60 billion New Taiwan (NT) dollars (U.S. \$2.36 billion). However, Taiwan nuclear industry experts say the switch from a turnkey contract to a component-based contract will not bring the cost of the Lungmen project within the total budget of NT\$ 112.5 billion (U.S. \$ 4.43 billion) approved by the Taiwan legislature in 1994. In 4/95, officials from Westinghouse/Nuclear Engineering (NE), ABB-CE, and the French company

Framatome all indicated they might continue bidding for the Lungmen project if Taipower decided to offer another bid opening.

Donald Shapiro, *Nucleonics Week*, 5/11/95, pp. 2-3 (13059). Dennis Engbarth, Pearl Marshall, and Dave Airozo, *Nucleonics Week*, 4/27/95, pp. 1, 9-10 (13059). Donald Shapiro, *Nucleonics Week*, 4/13/95, pp. 4-5 (13059).

TAIWAN WITH MARSHALL ISLANDS

5/30/95

Taiwan's Atomic Energy Council (AEC) Chairman is set to visit the Marshall Islands to discuss arrangements for a nuclear waste repository on the Islands. Taiwan's state owned Taipower is reported to have already held talks with Marshall Islands' government officials in early 5/95.

BBC Monitoring Summary Of World Broadcasts, 5/30/95; in UI News Briefing, 5/24-30/95 (12820).

TAIWAN WITH PRC

6/8/95

The Taiwan Power Company (Taipower) and the China National Nuclear Corporation (CNNC) are conducting unofficial negotiations to establish a repository for Taiwanese spent nuclear fuel on Chinese soil. The next meeting is scheduled for 7/95. Since China views any Taiwanese capacity to build atomic weapons as a threat, China's interests would be served by the storage of, and control over, Taiwanese wastes for up to 50 years. Taiwan must have permission from the U.S. before shipping wastes to a third country, and it is expected that the U.S. will consent only to the export of low level wastes, free of any enriched uranium or plutonium.

Foreign Report, 6/8/95 (13128).