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Articles & Other Documents:

[COUNTRY PREPARED FOR ANY RADIOLOGICAL EMERGENCY](#)

[UAE NUCLEAR DEAL - ATOMS FOR PEACE OR BOMBS FOR SNEAKS?](#)

[N KOREA 'TESTS WEAPONS ON CHILDREN'](#)

[SECURING SERBIA'S NUCLEAR LEGACY: IAEA'S LARGEST TECHNICAL COOPERATION PROJECT AIMS TO LOWER VINČA'S RADIOACTIVE RISKS](#)

[NONMILITARY ACTIONS CAN DETER IRAN, GATES SAYS](#)

[JAPAN MAN "ADMITS SELLING TRUCKS" TO NORTH KOREA](#)

[INDIA SUBMARINE 'THREATENS PEACE'](#)

[IRAN'S NUCLEAR PROGRAM: LESSONS FROM PAKISTAN](#)

[SENATE PASSES BILL TO CLOSE NEVADA'S YUCCA MOUNTAIN NUCLEAR WASTE SITE](#)

[NORTH KOREA CAPTURES SOUTH KOREAN FISHING BOAT AMID NUCLEAR TENSIONS](#)

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Arab News
July 26, 2009

COUNTRY PREPARED FOR ANY RADIOLOGICAL EMERGENCY

Ghazanfar Ali Khan

RIYADH: Saudi Arabia, which will send a delegation to the meeting of the Arab Atomic Energy Agency (AAEA) in Tunis on Monday, says it is prepared to respond to radiological emergencies with a national emergency plan. "The plan gets activated in case of any radiological disaster," said Abdulrahman Mohammed Alarfaj, a prominent energy expert working at the Atomic Energy Research Institute of the Riyadh-based King Abdulaziz City for Science & Technology (KACST), here yesterday.

Alarfaj, who spoke at length about the activities of the AAEA with special reference to the agenda of the four-day meeting, said the Kingdom was well equipped to control and manage any radiological emergency. The plan addresses first and foremost commercial radiological utilizations, like nuclear medicine and radiological institutions in the Kingdom.

“If the disaster goes out of control, then the Kingdom’s national plan gets activated,” said the KACST energy expert, who will be leaving today to attend the AAEA meeting.

He pointed out that the national body to respond to radiological disasters has the representation of more than 23 relevant organizations and government agencies, including the Ministry of Health, Ministry of Agriculture and Ministry of Electricity. The plan works with the Civil Defense as the focal point under the Ministry of Interior, he added. The KACST energy expert said that the Kingdom has 13 radiotherapy centers and 50 nuclear medicine centers, which are monitored by KACST.

Asked about the possibility of industrial disasters with radioactive leaks, he said that most of the major industries were using industrial gauges, which regulate and control such problems.

Moreover, the Kingdom has a broad range of specialties needed in a radiological emergency, including health and safety specialists, laboratory technicians, protective equipment, and decontamination experts.

“That is why the task force set up under the national plan is fully prepared to respond quickly to incidents of radiological contamination, wherever they may occur,” said Alarfaj.

Spelling out the agenda of the AAEA meeting, he said that the executive board of this Arab atomic body would convene its session to discuss the whole spectrum of issues, primarily a pan-Arab program for peaceful nuclear use. The meeting, he said, would work out details to host the next biennial Arab conference on nuclear energy for peaceful purposes.

Delegates will be attending the meeting from all member states, namely Saudi Arabia, Jordan, Bahrain, Egypt, Tunisia, Libya, Sudan, Syria, Iraq, Palestine, Kuwait, Lebanon and Yemen.

The meeting, according to the KASCT expert, will draw out several proposals and programs following the adoption of an Arab strategy for peaceful nuclear development by an Arab summit in Doha in March this year.

He said that the meeting, to be co-chaired by Yemen and Jordan, would also focus on training manpower to apply new nuclear techniques in the fields of medicine, radio therapy and in many other related areas.

The AAEA session will also approve the agenda and review the past activities that included several training programs hosted by member states over the last six months.

<http://arabnews.com/?page=1§ion=0&article=124870&d=26&m=7&y=2009&pix=kingdom.jpg&category=Kingdom>

[\(Return to Articles and Documents List\)](#)

Al Jazeera

July 24, 2009

N KOREA 'TESTS WEAPONS ON CHILDREN'

Steve Chao

When Im Chun-yong made his daring escape from North Korea, with a handful of his special forces men, there were many reasons why the North Korean government was intent on stopping them. They were, after all, part of Kim Jong-il's elite commandos - privy to a wealth of military secrets and insights into the workings of the reclusive regime. But among the accounts they carried with them is one of the most shocking yet to emerge – namely the use of humans, specifically mentally or physically handicapped children, to test North Korea's biological and chemical weapons.

"If you are born mentally or physically deficient, says Im, the government says your best contribution to society... is as a guinea pig for biological and chemical weapons testing."

Even after settling into the relative safety of South Korea, for 10 years Im held on to this secret, saying it was too horrific to recount. But with Kim's health reportedly failing, and the country appearing increasingly unpredictable, Im felt it was time he spoke out.

Daughter given up

The former military captain says it was in the early 1990s, that he watched his then commander wrestle with giving up his 12-year-old daughter who was mentally ill.

The commander, he says, initially resisted, but after mounting pressure from his military superiors, he gave in. Im watched as the girl was taken away. She was never seen again.

One of Im's own men later gave him an eyewitness account of human-testing.

Asked to guard a secret facility on an island off North Korea's west coast, Im says the soldier saw a number of people forced into a glass chamber. "Poisonous gas was injected in," Im says. "He watched doctors time how long it took for them to die." Other North Korean defectors have long alleged that the secretive nation has been using political prisoners as experimental test subjects. Some have detailed how inmates were shipped from various concentration camps to so-called chemical "factories".

'Widespread practice'

But Im's is the first account of mentally-ill or physically challenged children being used.

Security analysts believe Kim oversees one of the most aggressive and robust biochemical weapons programmes in the world.

A member of the special forces' Brigade No.19, Im says he was trained on how to use biochemical weapons against the "enemy" – including how to fire them from short-range "bazooka-style" weapons. He says such training was normal practice for all elite units.

Today it is estimated the country has accumulated a stockpile of more than 5,000 tonnes of biochemical weaponry; from mustard gas, to nerve agents such as sarin, to anthrax and cholera.

The extent of the stockpile is a concern to Kim Sang-hun, a retired UN official who has spent years investigating the North's chemical and biological weapons programme.

He believes over the past 20 years, the programme has advanced at a startling pace, specifically because the country's rulers approve and support the use of human test subjects.

"Human experimentation is a widespread practice," Kim says. "I hoped I was wrong, but it is the reality and it is taking place in North Korea and it is taking place at a number of locations." There are some who question claims that the North conducts human trials. But Kim says he has interviewed hundred of defectors who, more times than not, volunteer personal vivid accounts.

"The programme is now a commonly known fact in the North Korean public," he says.

As a former member of the elite special forces, Im agrees. While the government may be secretive about a lot of things, he says "when it comes to human experimentation, most know it happens". Investigating what he says are serious UN violations regarding the rights of children and prisoners, Kim Sang-hun has amassed a vast amount of evidence.

Compiled in folders at his home in Seoul are reams of testimonies and documents.

Some bear what appear to be official government stamps approving the transfer of prisoners from camps to chemical "factories".

He says he believes these are, in reality, experimental weapons sites. He has pinpointed at least three to five labs that he believes are situated in different parts of the country, including one just a few kilometres north of the capital, Pyongyang. Security analysts suspect there are as many as 20 such plants across the country.

Biochemical threat

As the world's attention focuses on the North's nuclear programme, Im is worried the international community will miss what he believes is the more imminent threat posed by the country's biochemical arsenal. Arms experts say at least 30 per cent of North Korea's missile and artillery systems are capable of delivering such weapons. With each successive test, they warn the North's accuracy improves, and so too its range.

The UN Security Council now says it believes three of the seven missiles tested by the North on July 4 were Scud-ER missiles, which are known to be more accurate and have a range of 1,000km. Tokyo is roughly 1,160km from the base on North Korea's east coast from where the missiles were fired, while other parts of Japan are closer.

Im believes the government would not hesitate to use such arms, saying he has seen the "ruthlessness" of the country's leaders. During his escape from North Korea in December 1999, Im says he and his men battled their way out, chased by dozens of members of other commando units. "I myself killed three men," he says. "Then after swimming across the half frozen Tumen river into China, we sold our guns, and left that life behind."

Im now devotes his time to gathering intelligence about the North's military capabilities.

Even a decade after his escape, the threat he still poses to the North Korean government means that he now lives under the constant protection of South Korea's National Intelligence Service.

<http://english.aljazeera.net/news/asia-pacific/2009/07/20097165415127287.html>

[\(Return to Articles and Documents List\)](#)

Washington Post

July 28, 2009

NONMILITARY ACTIONS CAN DETER IRAN, GATES SAYS

Greg Jaffe

JERUSALEM, July 27-- Defense Secretary Robert M. Gates on Monday stressed engagement and economic sanctions to prevent Iran from acquiring a nuclear weapon, prompting his Israeli counterpart to insist that "no options" should be ruled out if diplomacy fails.

Israeli Defense Minister Ehud Barak, in a short news conference with Gates, who was visiting here, twice raised the possibility that military action might be needed to stop Iran's nuclear program. "We clearly believe that no options should be removed from the table," Barak said. "This is our policy. We mean it. We recommend others to take the same position, but we do not dictate to anyone."

Gates steered clear of any talk of military options. Although the Obama administration has not ruled out using military force against Tehran, it has focused most of its attention on drawing the Iranians into talks over their nuclear program and convincing them that developing a nuclear bomb is not in their best interest. Gates said the administration hopes to have by the fall an initial response from Iran regarding its entreaties.

If the talks fail, he said, stiff international economic sanctions on Tehran would be in order. "I think we're in full agreement [with Israel] on the negative consequences of Iran obtaining this kind of capability," Gates said. "I think we are also agreed that it is important to take every opportunity to try and persuade the Iranians to reconsider what is actually in their own security interest."

The Israelis haven't outwardly, or in private, opposed talks between the United States and Iran, U.S. defense officials said. But Barak's remarks made it clear the Israelis remain deeply skeptical that any engagement will dissuade Iran from its nuclear ambitions.

Despite the outward differences in tone, both Gates and Barak stressed that the opening for engagement with Iran is limited. "If there is an engagement, we believe it should be short in time, well defined in objectives, followed by sanctions," Barak said.

Gates also warned that Iran would not be allowed to use the cover of engagement to "run out the clock" while it continues to make progress in the nuclear program.

The half-day trip to Israel marked Gates's second visit to the Jewish state as defense secretary. From the outset of his tenure as Pentagon chief, Gates has stressed that any strike by the United States or Israel on Iran would profoundly destabilize the Middle East. He has also said repeatedly that an Iranian nuclear weapon would provoke an arms race in the region that would be very damaging. Iran denies trying to develop a nuclear weapon, saying it is trying to develop nuclear reactors for generating domestic power.

<http://www.washingtonpost.com/wpdyn/content/article/2009/07/27/AR2009072701604.html?wprss=rss-world>

[\(Return to Articles and Documents List\)](#)

BBC News
July 28, 2009

INDIA SUBMARINE 'THREATENS PEACE'

India's launch of a nuclear-powered submarine is a threat to regional peace and security, Pakistan has said. "Pakistan will take appropriate steps to safeguard its security without entering an arms race," foreign office spokesman Abdul Basit said. The submarine, unveiled at a ceremony on Sunday, will be able to launch missiles at targets 700km away.

At Sunday's launch, Prime Minister Manmohan Singh said India had no aggressive designs on anyone. India has become only the sixth country in the world to build its own nuclear-powered submarine - until now only the US, Russia, France, Britain and China had the capability to do so.

'Jeopardising security'

But the move has prompted concern over the border. "The continued induction of new lethal weapon systems by India is detrimental to regional peace and stability," Mr Basit said. "Pakistan believes the maintenance of strategic balance is essential for peace and security in the region."

Pakistan navy spokesman, Captain Abid Majeed Butt, told Dawn News television that the launch of the submarine was a "destabilising step". He said it would "jeopardise the security paradigm of the entire Indian Ocean region" - and warned of a possible nuclear arms race in the region. At the launch ceremony Indian Prime Minister Manmohan Singh said it was necessary to keep pace with technological advancements worldwide.

He added that the sea was becoming increasingly relevant to India's security concerns.

The 6,000 tonne Arihant submarine will only be deployed after a few years of trials. But it will be able to launch missiles at targets 700km (437 miles) away.

The BBC's Sanjoy Majumder in Delhi says until now India has been able to launch ballistic missiles only from the air and from land. Nuclear submarines will add a third dimension to its defence capability. When it is eventually deployed, the top-secret Arihant will be able to carry 100 sailors on board. It will be able to stay under water for long periods and thereby increase its chances of remaining undetected. By contrast, India's ageing conventional diesel-powered submarines need to constantly surface to recharge their batteries. Our correspondent says the launching of the Arihant is a clear sign that India is looking to blunt the threat from China which has a major naval presence in the region.

http://news.bbc.co.uk/2/hi/south_asia/8171715.stm

[\(Return to Articles and Documents List\)](#)

Los Angeles Times/ Associated Press
July 30, 2009

SENATE PASSES BILL TO CLOSE NEVADA'S YUCCA MOUNTAIN NUCLEAR WASTE SITE

Washington -- The Senate on Wednesday passed a \$34.3-billion energy spending bill that backs up President Obama's promise to close the Yucca Mountain nuclear waste facility in Nevada. The bill, passed by a 85-9 vote, also covers water transfers to help farmers in California and hundreds of water projects by the Army Corps of Engineers. The House passed a similar bill two weeks ago. Once the measures are reconciled, the bill will go to the president for his signature. The Yucca Mountain project, 90 miles from Las Vegas, was designed to hold 77,000 tons of waste but has been strongly opposed by the Nevada delegation.

The move fulfills Obama's campaign promise to close Yucca Mountain, which was 25 years and \$13.5 billion in the making. It would, however, leave the country without a long-term solution for storing highly radioactive waste from nuclear power plants.

The 1987 law requiring waste to be stored at Yucca Mountain remains on the books, however, so the project could in theory be revived. The Yucca Mountain project would still receive the \$196.8 million budgeted by Obama for work on the site, although the money wouldn't be used to ship waste there.

The Senate also adopted an amendment by California Democratic Sens. Dianne Feinstein and Barbara Boxer to allow water transfers to help California farmers suffering from severe drought conditions. "I view this as a breakthrough in the water wars in California," Boxer said. "We were able to bring environmentalists together with the water districts."

The provision would facilitate transfer of water from the eastern portion of the San Joaquin Valley to the western part of the valley that has been particularly affected by a multiyear drought. Comparable language is in the House measure.

<http://www.latimes.com/news/nationworld/nation/la-na-yucca30-2009jul30,0,2377820.story>

[\(Return to Articles and Documents List\)](#)

The Washington Times

July 30, 2009

UAE NUCLEAR DEAL - ATOMS FOR PEACE OR BOMBS FOR SNEAKS?

Henry Sokolski

President Obama wants to go to zero nuclear weapons. But his first official act of nuclear restraint - the submission to Congress of a U.S. civilian nuclear cooperative agreement with the United Arab Emirates - suggests why we might not get there.

At a hearing July 8, House Foreign Affairs Committee members worried aloud that the deal with the United Arab Emirates might not be the needed "peaceful" alternative to the situation in Iran, a country accused of trying to exploit civilian nuclear energy to make bombs. Should the United States use it as a template for similar deals with other Arab states that, given Iran's program, have announced plans to build nuclear power reactors of their own? Members on both sides of the aisle were not entirely convinced.

The deal conditions the transfer of U.S. nuclear goods upon the United Arab Emirates not making nuclear fuel - a process that could bring any state within weeks of acquiring nuclear weapons. It also requires the UAE to allow the International Atomic Energy Agency (IAEA) to inspect its nuclear program under a new set of less constrained procedures known as the Agreed Protocol.

All of this sounds pretty good. But committee members raised three sticking points.

First, how willing is the United Arab Emirates to sanction Iran? Certainly, if Iran gets a pass for bending the nuclear rules, its model for developing civilian nuclear energy (and getting within weeks of a bomb) would appeal to its insecure neighbors far more than any no-nuclear fuel-making scheme ever could. Conversely, if its nuclear misbehavior is sanctioned heavily, Tehran would become an example to be avoided.

Getting the United Arab Emirates to back sanctions will be critical. Rep. Brad Sherman, California Democrat, noted that roughly \$12 billion in foreign goods destined for Iran pass through Dubai, including nearly all of Iran's refined petroleum imports. Given Iran's heavy dependence on outside oil refiners, Congress has proposed sanctioning firms and states that export gasoline to Iran or help it refine oil.

The worry is that the United Arab Emirates will not play ball. At the hearing, Rep. Ed Royce, California Republican, quoted Sheik Mohammed bin Rashid Al Maktoum, the UAE prime minister, as saying that Iran's nuclear program was an "internal matter ... as long as our brothers in Iran continue to reassure the world that the program is peaceful." Both congressmen seemed dismayed that the State Department had not yet secured a UAE commitment to support trade sanctions against Iran if they became necessary.

Second, other key nuclear suppliers have yet to support the deal's sound nonproliferation conditions. The agreement's text says the United States would terminate cooperation and could demand that the United Arab Emirates return what the United States had sold it if the UAE went ahead and tried to make nuclear fuel. However, the French nuclear cooperative agreement with the United Arab Emirates has no such conditions. Unless the United

States gets France and other key nuclear suppliers - for example, Germany and Russia - to agree to uphold our conditions, the United Arab Emirates could buy from these less-restrictive suppliers and make nuclear fuel.

Of course, it is unlikely that the United Arab Emirates would ever do this, but other Middle Eastern states such as Jordan, which recently professed a desire to make nuclear fuel, might. If they did, they might forfeit their right to acquire controlled U.S. nuclear goods, but, as Mr. Sherman noted, the United Arab Emirates and other Middle Eastern states might not buy from the United States anyway. In fact, no U.S. nuclear firm would risk selling to states that have not formally protected these firms from being sued in the case of a nuclear accident. No Arab state, including the United Arab Emirates, has yet legally provided such protection. Bottom line: Our diplomats need to approach the other key nuclear suppliers about adopting the nonproliferation conditions of the U.S.-United Arab Emirates deal. So far, they haven't.

Finally, the United States has yet to get the kind of inspections needed to verify the UAE pledge not to make nuclear fuel. The IAEA has repeatedly asked Iran to allow the agency to establish secure communication links to the IAEA's remote inspection cameras. Tehran has rebuffed each request. These links are necessary to enable officials in Vienna to see that their cameras are not being interfered with and that reactor fuel containing materials that can be used to make bombs isn't being diverted during the 90-day interval between human inspector visits.

Since the IAEA admits it cannot reliably detect covert nuclear-fuel-making plants - especially ones that have not yet been operating - getting the United Arab Emirates and other Middle Eastern states to allow near-real-time surveillance is not just nice, but critical to verify any minimally credible fuel-making pledge. But as Mr. Royce and Rep. Jeff Fortenberry, Nebraska Republican, learned while questioning administration officials at the hearing, our diplomats have yet to ask.

This is a mistake. Certainly, tying up all these loose ends would strengthen Mr. Obama's hand in dealing with Iran. It also would make his nuclear nonproliferation rhetoric ring far less hollow. And if he ignores these reasonable congressional requests? In this case, Mr. Obama's noble efforts to develop atoms for peace in the Middle East could easily be turned into nuclear bombs for sneaks.

<http://www.washingtontimes.com/news/2009/jul/30/uae-nuclear-deal-atoms-for-peace-or-bombs-for-snea/>

[\(Return to Articles and Documents List\)](#)

International Atomic Energy Agency
July 29, 2009

SECURING SERBIA'S NUCLEAR LEGACY: IAEA'S LARGEST TECHNICAL COOPERATION PROJECT AIMS TO LOWER VINČA'S RADIOACTIVE RISKS

Staff Report

Vinča, Serbia -- A soft summer rain falls on a decrepit, rusting warehouse in the suburbs of Belgrade, Serbia. From the outside, all appears normal, nothing more than a shabby storehouse set against a small patch of trees. But inside, a pile of decades-old radioactive waste in deplorable condition has sat for decades, posing a threat to the health and safety of people and the environment. More than a thousand sealed radioactive sources remain inside - a half-century's stock of radioactive refuse from the former Yugoslavia and Serbia. But the full picture of what's inside this radioactive storehouse is a mystery, since precise records haven't been kept. Such is the scene at the Vinča Institute of Nuclear Sciences, a large research campus that served as the nerve center for former Yugoslavia's nuclear research activities since the late 1940s.

Just a few kilometres from the Danube, the site has endured different periods of upheaval and influence, including varying degrees of Cold War-era intervention by the US and the Soviet Union. In 1959, the USSR supplied Vinča with the nuclear fuel and technical assistance to construct Vinča's "RA" reactor, a 6.5 megawatt, heavy-water moderated research reactor capable of using fuel highly enriched in U235. The RA reactor was actually the second to operate at Vinča, and was preceded by the country's first nuclear reactor, a heavy-water zero-power critical assembly (which is still in operation). There has been much speculation as to the original intentions for the facility

under Yugoslavia's then-leader Josip Broz Tito, and some research seems to indicate that a modicum of weapons research may have been conducted at Vinča in its early days.

Changes in government, the breakup of Yugoslavia, and the NATO bombing campaign in 1999 are all factors that conspired to keep Vinča's management, direction, and focus in a constant state of flux. These dynamics brought Vinča to where it is today; and serve as a prime example of capable scientists and sophisticated equipment falling prey to political winds of change.

Concerns about Vinča on the part of the international community grew in the mid-1990s, when IAEA teams were dispatched upon Serbian request to inspect the site. These visits were instrumental in alerting the outside world about the state of the nuclear fuel on site, and the inherent risk to health and safety of those around Vinča.

As part of the IAEA and global community's push to support reduced enrichment for research and test reactors, along with concerted efforts to return highly enriched uranium (HEU) fuel to the country of origin, an extraordinary level of international cooperation has coalesced to clean up Vinča.

The first major step in the Vinča project took place earlier this decade, when the most urgent threat to proliferation was dealt with. In 2002, an international operation to return 48 kilograms of unirradiated HEU fuel of Soviet-origin came about after protracted negotiations between then-Yugoslavia, the US, Russia, the IAEA, and other parties. The transport of the fuel was conducted amid intense security, with over 1200 armed guards ushering a convoy of trucks to the Belgrade airport for a flight to Russia, where the HEU would then be down-blended to a low-enriched form. IAEA safeguards inspectors watched over the procedure by gauging the fissile material, inspecting records, and applying seals to the shipping containers.

Current Workload

Since return of the unirradiated HEU, the foremost priority has been to deal with two-and-a-half tons of Russian-origin irradiated, spent nuclear fuel elements, which were initially used in the RA reactor. As the reactor last went critical in 1984, the SNF has been stored for decades in aluminium barrels in an adjoining spent fuel pool. However, the pool's water chemistry has been poorly maintained, leading to corrosion of the fuel element's aluminium cladding and leakage of fission products into the storage pool, though not into the environment. The water's condition is further degraded by an accumulation of sludge, increasing the pool's turbidity and lending it an inky black colour.

So the push is now on to repackage and repatriate the spent fuel for return to Russia, and the strong support and involvement of the Serbian Government has been instrumental in moving this project forward. An agreement between Serbia and Russia that governs the transfer of the fuel was signed this past June, and work is set to begin in autumn. Yet the task is fraught with complexities, and long lists of preparatory steps need to be taken to facilitate the fuel repacking and removal work.

IAEA Director General Mohamed ElBaradei visited the facility in early July 2009, to assess the progress at Vinča. "The unused nuclear waste is in poor condition and needs to be moved as soon as possible. The situation is under control for now, but it could be very dangerous from a safety and security point of view," he commented.

To remove, characterize, and repackage Vinča's spent fuel, technologically unique operations will have to be performed. Sludge in the pool needs to be removed, custom fuel handling equipment needs to be designed and fabricated, and enhanced radioactivity monitoring systems need to be installed before repackaging begins. The fuel also needs to be stabilized and undergo thorough analysis before it can be removed. Finally, roads leading to the spent fuel storage room need to be reinforced to increase loading capacity and access for the trucks, cranes, and steel casks that will be used in the operation. Over 50 experts and technicians have been assigned for the task ahead. A target date of the end of 2010 has been set for the shipment, and work is set to begin in autumn 2009 to begin the fuel repackaging portion of the project.

"For the Vinča project, we've needed access to huge, expensive technologies to move this massive amount of fuel back to Russia," said John Kelly, the IAEA Special Programme Manager tasked with coordinating the Agency's work.

Radioactive Waste

Yet another important dimension to the Vinča clean-up effort that the IAEA and the international community are helping Serbia with is the construction of new facilities to deal with the legacy of radioactive waste at Vinča. Two hangars chock-full of more than 1000 disused radioactive sealed sources and other radioactive waste have sat for decades in degraded condition. The sealed sources and waste need to be removed from the two aging hangars and conditioned for secure and safe storage in new long-term storage facilities.

All told, the waste will be dealt with by a waste storage facility, a secure storage bunker, and a waste processing facility. These three systems are in various stages of development, but the IAEA has committed to working with Vinča and Serbian regulators to commission these new installations. A sealed source conditioning facility is also on the near horizon. The support to the radioactive waste management improvements includes safety and security assistance, training and experts, facility upgrades, regulatory assistance, and equipment donations. Much like the spent fuel repatriation, the radwaste management project is expected to take several years to complete.

Importance of Success

Logistically and financially speaking, the Vinča Institute Nuclear Decommissioning (VIND) project is the largest Technical Cooperation programme in the Agency's history. Several divisions within the IAEA have deployed technical officers to work on the project, which involves the Departments of Safety and Security, Nuclear Energy, Safeguards, Legal Affairs, Procurement Services and Technical Cooperation. The funding aspect has been particularly challenging and given the complexity of the operation, it is little wonder that the price tag is expected to be \$47.5 million for the full spent fuel repackaging and repatriation portion. The VIND programme in total is projected to reach roughly \$75 million. To date, Serbia, the EU, the Czech Republic, Russia, Slovenia, Italy, UK, USA and the Nuclear Threat Initiative (a non-government donor) have made contributions to the project. The IAEA has also provided support through deployment of equipment, experts, and other assistance.

"With the vast amount of funding needed for the VIND project, pulling together such a disparate donor pool has been nothing short of miraculous," explained Kelly. "But momentum has been the key driver in making progress towards donations - when donors see you actually making progress, then they want to participate. Donors want to invest in success."

VIND highlights the IAEA's unique role and importance in collaborating with and coaxing financial assistance from a diverse donor pool. "We're working closely with the Serbian government and our goals are identical," said ElBaradei. "We must ensure that there are no similar risks either here in Vinča or elsewhere in Serbia."

Though undoubtedly an expensive venture, the work is necessary, as leaving the site in its current condition is not an option. The VIND project is a prime example of the international community coming together through the IAEA to solve an important and complex safety and security challenge. -- Dana Sacchetti, IAEA Press and Public Information Officer, Division of Public Information

<http://www.iaea.org/NewsCenter/News/2009/vinca.html>

[\(Return to Articles and Documents List\)](#)

Reuters

July 27, 2009

JAPAN MAN "ADMITS SELLING TRUCKS" TO NORTH KOREA

Isabel Reynolds

TOKYO (Reuters) - The chief executive of a Japan-based trading company on Monday pleaded guilty to illegally exporting to North Korea two tanker trucks that could be used as missile launch pads, Kyodo news agency said. The case comes as the global community enforces tightened U.N. sanctions against Pyongyang that ban all North Korean arms exports in response to its May 25 nuclear test.

In addition to shipping the trucks to North Korea via South Korea last year, the 50-year-old company head also pleaded guilty in a Kobe court to exporting four used Mercedes-Benz cars and 34 pianos to North Korea in breach of a ban on the export of luxury goods to Japan's unpredictable neighbor, Kyodo said.

Prosecutors were seeking a three-year jail term for what they said was an extremely serious crime, the news agency said. Japan has in recent years uncovered a series of incidents of illegal exporting of precision equipment that could be used in North Korea's nuclear weapons program. Tokyo slapped a total ban on exports to North Korea last month after North Korea's second nuclear test. Last week Italy blocked the sale of two luxury yachts to North Korea that police said were intended for leader Kim Jong-il.

U.S. Secretary of State Hillary Clinton said last week North Korea had no friends left to shield it from the world's demands that it scrap its "provocative" nuclear activities.

The United States has repeatedly urged North Korea to return to six-party talks on ending its nuclear weapons program, but Pyongyang has shown no sign of cooperating.

Washington has also been warning companies and banks around the world to avoid any dubious trade with North Korea.

<http://www.reuters.com/article/newsOne/idUSTRE56Q0AM20090727>

[\(Return to Articles and Documents List\)](#)

The Washington Institute

July 30, 2009

IRAN'S NUCLEAR PROGRAM: LESSONS FROM PAKISTAN

Simon Henderson

Public anxiety about Iran's nuclear intentions is focused on the Natanz uranium enrichment plant, which in many respects -- in both the public debate and the policy discussion -- resembles the situation in the 1980s when there was growing concern about Pakistan's Kahuta enrichment plant. The lessons that can be drawn from that experience are not encouraging. The comparison is particularly appropriate because Iran uses the same high-speed centrifuge technology to enrich uranium as does Pakistan. Photos of Iranian centrifuges show some of them as identical to Pakistani designs developed by the disgraced A.Q. Khan. Iran also claims to be operating more advanced centrifuges using its own modifications.

Uranium and Its Isotopes

The uranium isotope U-235 is a fissile material; under the right conditions, it undergoes a chain reaction. If controlled, the chain reaction produces heat that can be used to generate power in a nuclear power plant. When uncontrolled, the chain reaction is explosive. Uranium-235, however, only occurs in 0.7 percent of natural uranium (uranium-238 is the more common isotope), so to increase the proportion of fissile material, the uranium must be enriched.

Enriched between 3 and 5 percent, uranium-235 can be used as a fuel in power plants. The International Atomic Energy Agency (IAEA) classifies anything enriched at 25 percent or more as highly enriched. Uranium at the low end of that definition is used in specialized nuclear power reactors, such as those used in some submarines. Nuclear explosive devices typically use uranium enriched to 90 percent or more, as in the atomic bomb dropped on Hiroshima in 1945.

The other material used in nuclear explosives is plutonium, as in the bomb dropped on Nagasaki. Plutonium does not occur naturally; it is a byproduct of uranium used in nuclear power or research reactors and, when separated or reprocessed from other waste products, is a more powerful explosive than uranium-235. Iran is currently building a plutonium-producing reactor at Arak, where it refuses to provide access to the IAEA.

The Pakistani Experience

In the 1970s and 80s, Pakistan's denials of nuclear military intent and claims of the solely peaceful nature of its Kahuta plant were as strong as Iran's current protests. Former U.S. officials personally witnessed dramatic protestations of innocence by then military dictator Gen. Muhammad Zia al-Haq despite ironclad intelligence information to the contrary. (Pakistan's overseas purchasing network had been thoroughly penetrated by the early 1980s, and the design specifications of its intended nuclear device extrapolated from components ordered in Britain.) In 1989, the late Pakistani prime minister Benazir Bhutto claimed in a speech to the U.S. Congress that "we do not possess nor do we intend to make a nuclear device." Unfortunately, neither aspect of this statement was true.

By this time, nine years before it actually tested two nuclear devices, Pakistan already had a workable design, based on drawings supplied by China, and had built a small nuclear arsenal.

The extent to which Pakistan, an ally of the United States, deliberately took an approach contemptuous of Washington is astonishing. General Zia, while restricted by U.S. congressional determination to impede Pakistan's development of nuclear weapons, artfully took advantage of the Reagan administration's need for Pakistan's help in undermining the Soviet army in Afghanistan. In 1984, Zia publicly agreed to a U.S. demand that Pakistan would not enrich beyond 5 percent, yet told his scientists to ignore any such restriction. Without inspection of Kahuta, which was not and still is not subject to international safeguards, it was impossible to confirm what Pakistan was doing. At least one attempt at clandestine monitoring was thwarted when Pakistan discovered a high-tech device, disguised as a boulder, on a nearby hillside. Historical accounts suggest that U.S. officials were also undermined by a verbal agreement between Zia and President Reagan that Pakistan would not embarrass the United States by actually testing a nuclear device. (The U.S. media had already reported that American satellites had discovered Pakistan's proposed test site in the Baluchistan desert and the construction of support facilities.)

The United States failed in the effort to deter Pakistan despite relatively cordial diplomatic ties and a shared strategic goal in Afghanistan. Perhaps the only American success was to delay the Pakistani nuclear test until 1998 (when India tested for the second time).

The Iranian Dilemma

Iran, which has the world's second-largest oil reserves after Saudi Arabia and the second-largest natural gas reserves after Russia, claims implausibly that it needs nuclear power for its energy needs. Iran also asserts that it plans to sell low-enriched uranium from Natanz worldwide and to use it in future reactors built with Iranian technology. Meanwhile, Iran acknowledges it has no current capability to make its low-enriched uranium into the fuel rods for a reactor, nor does it claim to be working at developing such a capability. In fact, Iran's only nuclear reactor, under construction at Bushehr, on the Persian Gulf coast, will use fuel supplied by Russian manufacturers. The technical obstacles for Iran to pursue nuclear weapons, however, appear residual. The country seems to have all the access to the raw material, technology, and expertise that it needs. The challenge is to persuade Iran diplomatically that it should confine itself to a nonnuclear-weapons route.

In the face of Iranian technical advances, its denial of military intent, and its determination to master all aspects of the nuclear fuel cycle, one option that some have advocated is to accept the Iranian enrichment program so long as its scope is capped. Variations on this idea include securing an Iranian commitment to not enrich beyond a certain level, establishing better international supervision of Iranian enrichment capacity, or building an internationally owned plant operated by Iran, either inside or outside the country.

The Pakistan experience suggests the considerable problems involved in going down this route. Apart from the challenge of persuading Iran that it does not need nuclear weapons or the capability to make them, there is little reason for confidence that Iran would be honest in declaring all its facilities. Even if Iran showed willingness to take a diplomatic route toward resolving doubts about its program, the standards imposed by the United States would probably be stricter than those of other members of the international community. Iran's stance, seen by some countries as a stalling tactic and others as important clarification of detail, is likely to stay the same. Ultimately, Tehran can always say it should be allowed the same facilities and capabilities as neighboring Pakistan. Centrifuge cascades provide an example of just how difficult it is to gather the necessary information to discern Iran's real intent. Enriching uranium in centrifuges is not just a question of putting the hexafluoride feedstock into a cascade and then leaving it to spin until, in the case of what is needed for an atomic bomb, it is enriched beyond 90 percent. Rather, it is a step process where one group of centrifuges (a cascade) enriches to a certain level, and then another cascade, sometimes with a different number of centrifuges, taking it further. Pakistan's cascades operate in four steps, using as many as 164 centrifuges in each cascade in the initial stages and far fewer in the final stage. In 2007, the IAEA reported that Iran was using a 164-centrifuge cascade. Mastering the use of such a cascade is, infuriatingly for analysts, consistent with seeking both low-enriched and highly enriched uranium. The most recent IAEA reports do not specify how many centrifuges Iran has in each cascade, apart from several small experimental cascades. A greater concern is Iran's plans to have tens of thousands of centrifuges at Natanz. Pakistan's estimated eleven thousand centrifuges at Kahuta provide it with the capability to make enough highly enriched uranium each year for six to ten atomic bombs.

The Iranian nuclear challenge facing the international community today bears a haunting similarity to that faced by the United States twenty years ago with Pakistan -- a sobering thought when considering the prospects for engagement with Iran.

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[\(Return to Articles and Documents List\)](#)

Nuclear Threat Initiative
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NORTH KOREA CAPTURES SOUTH KOREAN FISHING BOAT AMID NUCLEAR TENSIONS

North Korean authorities yesterday took into custody a South Korean fishing boat that drifted into its territorial waters by mistake, complicating tensions between the two nations amid a standoff over Pyongyang's nuclear program, Agence France-Presse reported (see GSN, July 29). The vessel, called the 800 Yeonan, probably drifted off course due to trouble with its global positioning technology. It was intercepted by a North Korean patrol boat and towed, with its four-man crew, toward the port of Jangjon on the nation's east coast, according to the South Korean joint chiefs of staff's office.

"We immediately radioed to the North Korean navy, requesting the return of the stray South Korean fishing boat," said Chun Hau-sung, a spokesman for the office, "but there was no response." The ship's seizure comes as South Korea, along with the United Nations, is attempting to pressure the North through trade and financial sanctions to dismantle its nuclear weapons program. Pyongyang is already holding two U.S. journalists for illegally impinging on its territory, a development Washington has labored to keep separate from denuclearization negotiations.

If resolved peacefully, the issue could serve to mitigate tensions that recently increased as the North conducted nuclear and missile tests and accused Seoul of complicity in U.S. efforts to spark a war on the Korean peninsula, said Paik Haksoon, an analyst at a South Korean think tank.

So far, however, there has been little dialogue between the two governments. South Korean officials left the North a message instructing Pyongyang to repatriate the sailors "as soon as possible," Chun said. When they called again, North Korea answered and said it was "conducting an investigation" into the matter (Jun Kwanwoo, Agence France-Presse/Yahoo!News, July 30).

U.N. Secretary General Ban Ki-moon yesterday weighed in on North Korea's suggestion this week that it would consider negotiating changes to its controversial nuclear program in the context of bilateral talks with Washington, the Yonhap News Agency reported.

"That I would support and welcome," Ban said (Yonhap News Agency, July 30).

"While I believe that six-party talks provide a good way for a solution, if necessary there should be some other forms of dialogue," he said. "And I am encouraged by the willingness of [North Korean] authorities to engage in direct dialogue with the United States."

Washington has said it would only engage Pyongyang diplomatically within the framework of the six-party talks, which also include China, Russia, Japan and South Korea. The talks stalled last December and North Korea withdrew from them indefinitely in April. Pyongyang last week called the six-way negotiations "dead," but said it might be open to "a specific and reserved form of dialogue." Experts took that to mean direct talks with the United States, which the North has sought for years (Xinhua News Agency I, July 29).

China will probably cancel a three-way meeting with Washington and Tokyo, fearing it might exacerbate tensions with North Korea in light of Pyongyang's provocative behavior in recent months, Kyodo News reported today. The meeting -- the first such dialogue between the three nations -- was China's idea and had been scheduled before North Korea's nuclear test in May. Beijing now might back out of the conference due to concerns that it could inflame the fragile situation on the Korean peninsula, even though the agenda does not include any discussion of the North Korea issue, sources said (Kyodo News/Breitbart.com, July 30).

The United States is preparing for a number of upcoming diplomatic missions where it will push for support on North Korean denuclearization, Xinhua reported.

Recently appointed U.S. sanctions czar Philip Goldberg is scheduled to lead a delegation to Moscow next week to discuss the enforcement of the U.N. Security Council's recently expanded embargoes against Pyongyang. The council earlier last month broadened its sanctions on the North Korean weapons trade, and discouraged member nations to forbid their financial institutions from dealing with companies that contribute to the North's nuclear and missile programs. Several weeks ago, it endorsed targeted sanctions against 10 specific individuals and firms connected to those programs.

Goldberg plans to visit Asia again in coming weeks to discuss sanctions implementation with other regional allies (Xinhua News Agency II, July 29). A Chinese investment firm has severed ties with a North Korean company blacklisted by the Security Council as complicit in Pyongyang's weapons program, the Associated Press reported today.

The news came a day after China reported intercepting a shipment of a metal-strengthening chemical banned under the U.N. sanctions.

China has been reluctant in the past to enforce penalties against North Korea, which has undermined international efforts to disarm the reclusive nation in the past. But Beijing has shown more solidarity with the sanctions regime this time around. It reiterated its desire for a nuclear-free Korean peninsula earlier this week following strategic and economic talks with the United States, during which the subject of North Korean denuclearization was reportedly discussed at length (Associated Press/Google News, July 30). Meanwhile, the health of North Korean leader Kim Jong Il has deteriorated to the point that he is receiving twice-weekly kidney dialysis to combat the effects of diabetes, AFP reported.

The report came from a South Korean activist who cited sources in Pyongyang.

The dictator is believed to have had a stroke last summer, and a South Korean television network recently reported he has been diagnosed with deadly pancreatic cancer. Many observers believe Kim's health problems will force him to abdicate his post atop Pyongyang's Stalinist government, and a number of analysts think the North's recent military demonstrations are part of an effort to unify the nation in preparation for a power transfer.

"The nuclear test was carried out in order to prevent Kim's health problems from sparking rifts among power elites," said Ha Tae-keung, president of the South Korea radio station that reported on Kim's dialysis (Agence France-Presse/Google News, July 30). A U.S.-based North Korea expert yesterday suggested Kim's death could create a power scramble among government elders that might lead to nationwide anarchy, the Korea Herald reported.

"The fact that no succession process has been put into place openly makes one thing certain: the potential for anarchy within North Korea following Kim's death is very real," said Bruce Bechtol, a professor at the Marine Corps Command and Staff College in Seoul.

Kim is rumored to have named his son, 26-year-old Kim Jong Un, as his successor. However, many experts believe it would be difficult for the younger Kim to gain the loyalty of Pyongyang's power elites, who might jockey for power in the absence of Kim Jong Il.

"If no clear succession process is in place," said Bechtol, "and no clear powerful leader is in the wings who has a strong base in both the party and the military, what could easily ensue would be a no-holds-barred grab for power between the military, the party and the security agencies. If so, there is no way to predict the potentiality for implosion or explosion -- or both" (Korea Herald, July 30).

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[\(Return to Articles and Documents List\)](#)