SAY NO TO THE US-INDIA NUCLEAR DEAL
by David Krieger and Jonathan Granoff

George W. Bush thought that there were weapons of mass destruction in Iraq. He was wrong. Now Mr. Bush has returned from India, and has proposed a nuclear deal that he believes will help both the Indian and American people. He is wrong again.

Mr. Bush wants to cut a deal that will advance India’s nuclear capabilities, with potential profit for US corporations. The deal will bring some of India’s nuclear reactors under international safeguards, but will have the effect of further undermining the nuclear non-proliferation regime.

In exchange for robust nuclear technology sharing, Mr. Bush’s "deal" will place 14 of India’s 22 nuclear facilities under international safeguards. That will leave eight of India’s nuclear facilities without safeguards, including a fast breeder reactor program that produces plutonium that can be used by India to increase its production of nuclear weapons. The deal provides no cap on India's production of more nuclear weapons-grade fissionable materials.

To read the full article, visit: http://www.wagingpeace.org/articles/2006/04/26_krieger_granoff_no-us-india.htm.
reprocessing will make more waste streams that must be managed and does not eliminate the need for a geologic repository. Waste from reprocessing in the 1960s and 1970s continues to threaten important drinking water sources, and the Department of Energy estimates that it will cost US taxpayers $100 billion to clean up.

Tell your Senators and Representative to oppose funding for reprocessing radioactive waste. To send your letter, visit: http://capwiz.com/wagingpeace/issues/alert/?alertid=8-762011&type=CO.


For more information on the alternatives to reprocessing and nuclear power, visit: http://www.citizen.org/hot_issues/issue.cfm?ID=1351.

Proliferation

RUSSIA TO DEVELOP NEW NUCLEAR WEAPONS

On 10 May 2006, Russian President Vladimir Putin said during his annual address to the Russian parliament that the country would develop new nuclear weapons and high-precision weapons in order to preserve a strategic balance with the United States.

Apparently addressing the US-led invasion on Iraq and recent comments by Vice President Dick Cheney that Russia "unfairly and improperly restricted the rights of her people" and used oil and gas reserves as "tools of intimidation of blackmail," President Putin likened the United States to a wolf. President Putin stated, "As they say, 'Comrade Wolf knows whom to swallow. He swallows without listening to anyone. Nor does he intend to listen to anyone by all appearances."

According to President Putin, Russia plans to "substantially increase the provision of strategic nuclear forces with long-range planes, submarines and launchers" in the next five years. President Putin said, "Along with the means of overcoming the systems of antimissile defense, which we already have, new types of weapons enable us to preserve what is undoubtedly one of the most important guarantees of lasting peace - namely, the strategic balance of forces." Russia is also preparing "unique high-precision weapons" and missiles "whose trajectory is unpredictable for the potential enemy."

The United States quickly responded to the speech. A statement issued by the White House said, "We are disappointed that it did not address the concerns that many people have raised about Russia's commitment to democracy and its use of economic pressure against its neighbors. The US continues to work together with Russia on a number of important security and economic issues, even as we raise these concerns."


BRAZIL OPENS NEW URANIUM ENRICHMENT PLANT

On 5 May 2006, Brazil opened the first part of its new uranium enrichment facility in Resende, south of Rio de Janeiro, designed to supply its civilian nuclear reactors.

On 9 May, the International Atomic Energy Agency (IAEA) announced that it had adequate monitoring measures in place at the site. "There are safeguard measures that have been agreed that will meet the agency's requirements that there will be no diversion of nuclear material," said Marc Vidricaire, spokesperson for the Vienna-based International Atomic Energy Agency (IAEA).

Vidricaire did not confirm that Brazil had actually begun enriching uranium, which makes fuel for nuclear power reactors but can also produce bomb material.

While the world has called on Iran to suspend its enrichment of uranium to guarantee it is not secretly developing nuclear weapons, no one has asked the same of Brazil. In February, then US White House spokesperson Scott McClellan said that Brazil had US trust. "I think a difference here ... that I would point out -- if you're talking about Brazil versus Iran -- is one of trust," McClellan told reporters.

However, Brazil has had a nuclear weapons program in the past, which was a response to Argentina's nuclear weapons program.

Both Brazil and Iran have signed the nuclear Non-Proliferation Treaty (NPT) and are working to produce their own enriched uranium - Brazil for its two existing reactors and a third one on the way; Iran, for its future reactors.

The enriched uranium from Resende is to cover 60% of the needs of the Angra I and Angra II power plants, which produce 40% of the energy consumed in Rio de Janeiro and 4.3% of Brazil's energy needs.

Brazil has one of the world's largest uranium reserves, but has been receiving enriched uranium from overseas. In 2004, Brazil cited trade secrets in initially denying IAEA inspectors access to the Resende facility, fearing that its technological advances in centrifuges would leak to competitors. However, according to the Vidricaire, the IAEA now feels it has the access it needs for its safeguards monitoring.

For more information on Brazil's nuclear weapons program, visit: http://www.fas.org/nuke/guide/brazil/nuke/index.html.

Source: "UN to monitor Brazil uranium-enrichment plant," Mail and Guardian Online, 9 May 2006.
**CHERNOBYL SARCOPHAGUS CRACKING**

The sarcophagus over reactor No. 4 at the Chernobyl Nuclear Power Plant in Ukraine is cracking. Birds and rainwater have penetrated the shelter, which consists of 700,000 tons of steel and 400,000 tons of concrete, hastily built over the reactor following the 1986 accident. The sarcophagus sealed in an estimated 200-ton mix of radioactive fuel and materials, like concrete and sand, which fused when the explosion spiked temperatures to 980 degrees Celsius inside. Meanwhile, a multinational $1.1 billion US project to build a new giant steel arch designed to last 100 years is still on the drawing board. Yulia Marusych, a spokeswoman for the power station, stated, "Twenty years have already passed since the accident, but the risks and the hazards posed by the reactor are still there."

No one knows exactly how much radioactive fuel remains since only 25 per cent of the reactor is accessible. Some estimate it all was discharged during the 10 days when the reactor spewed out its insides. Others counter that as much as 90 per cent is still there. Sensors constantly check for signs of new reactions taking place.

Some accuse the Ukrainian government of playing up the dangers to get more international aid for the new shelter. Yuriy Andreyev, head of the Chernobyl Union, an advocacy group, accused the government of not doing enough. He said water accumulating under the reactor is highly irradiated and could leak into the region's groundwater.

Authorities said the priority now is stabilizing the sarcophagus. The roof is not sealed properly. The water inside is weakening the concrete and metal. The shelter's original west wall is leaning precariously. While a collapse would be unlikely to spark another explosion, it could release a huge burst of poisonous radioactive dust.

While talks continue on who will build the new shelter, construction crews are working to shore up the aging sarcophagus. They have to work in 20-minute shifts to minimize exposure to radiation.


**DR. KHAN CLANDESTINE NUCLEAR NETWORK INVESTIGATIONS CLOSED**

On 2 May 2006, Pakistan announced an end to investigations surrounding the leaking of nuclear secrets by the disgraced nuclear scientist, Abdul Qadeer Khan. The announcement came after a military spokesman said Dr. Mohammed Farooq, a key suspect linked to Dr. Khan's clandestine nuclear network, had been released just days earlier.

A former national hero, Dr. Khan has been under virtual house arrest since February 2004. In 2004 he admitted leaking nuclear secrets to North Korea, Libya and Iran. Dr. Farooq worked at Pakistan's premier nuclear weapons facility, Khan Research Laboratories (KRL), and was detained in December 2003 along with 10 others. Dr. Farooq was the last of Dr. Khan's team members to be freed from detention.

According to Ms. Aslam, the International Atomic Energy Agency (IAEA) and key countries including the US had been kept informed of the progress of the investigation during the entire process. She also said that both the IAEA and the US were fully satisfied with Pakistan's handling of the issue. She also said that at no stage of the process were officials or organizations allowed direct access to Dr. Khan. Ms. Aslam stated, "As far we are concerned this chapter is closed. I would presume that with Dr Farooq's release there is a closure to that case."

Dr. Khan is regarded in Pakistan as the father of the country's nuclear weapons program. President Musharraf pardoned Dr. Khan from allegations against him and others working in his proliferation network for secretly selling bomb designs and centrifuges during the 1990s. It is not clear whether Mohammed Farooq was found guilty of any wrongdoing. But even after being allowed to return to his family, he has been specifically instructed to remain indoors, and not to communicate with the media.


**US PLANS TEST TO SIMULATE LOW-YIELD NUCLEAR WEAPON**

The US Defense Threat Reduction Agency, the National Nuclear Security Administration and the Department of Defense are planning to explode a nuclear test code-named "Divine Strake" at the Nevada Test Site some time this year. While previously scheduled to take place on 2 June, a national Nuclear Security Administration official said in a federal court statement on 8 May that "The proposed detonation of Divine Strake will take place no earlier than June 23."

According to government attorneys, a new "decision document" to address safety and environmental concerns was expected to be released yesterday, delaying the schedule for hearings and filing of key paperwork.

According to the Department of Defense budget request, the test, which entails exploding 700 tons of ammonium nitrate and fuel oil in an open pit at the test site, is designed to identify the "smallest proper nuclear yield necessary to destroy underground facilities." The blast from this test will be 5 times larger than the largest conventional weapon in the US arsenal, and will have a yield of .6 kilotons - in other words, the power of a low-yield nuclear weapon.

While the test itself will not involve any radioactive materials, there is reason for concern:

- "Divine Strake" will provide data that can be used by nuclear weapons designers to created low-yield nuclear weapons. These new "mini-nukes" would likely be tested, putting many people in Idaho, Nevada and Utah at risk of once again being downwind.

- There is a possibility the test will stir up radioactive debris from radioactive fallout deposited at the nuclear test site during the four decades of testing, re-exposing communities downwind of the test to long-lived radioactive particulates.

- The test will also occur on traditional Western Shoshone land. The Western Shoshone have been fighting for sovereignty over their ancestral and treaty-recognized lands, and to shut down the NTS for years. Most recently, their efforts brought them to the United Nations Committee on the Elimination of Racial Discrimination (CERD) which found the United States in violation of recognized fundamental human rights standards and international law, and ordered the United States to "freeze", "desist" and "stop" their activities on Western Shoshone land. All this while the DTRA was preparing for the "Divine Strake" test.

In 2003, the Bush administration repealed the decade-long ban on researching mini-nukes - or "low-yield" nuclear weapons (i.e. weapons with a yield of less than 5 kilotons - about 1/3 the size of the Hiroshima bomb). However, for the past few years, Congress has refused to provide funding for research into these tactical nuclear weapons.

As tensions increase with Iran, speculation has increased in the media and elsewhere that this test, in conjunction with other military projects, is building up to an imminent attack on the peoples of Iran, possibly in the form of nuclear bombardment. This test is seemingly a "war game" to initiate a US-led invasion of Iran.

For more information on "Divine Strake," visit: http://www.disarmamentactivist.org.

Missiles and Missile Defense

PAKISTAN TESTS NUCLEAR-CAPABLE MISSILE

On 29 April 2006, Pakistan test-fired a nuclear-capable, surface-to-surface ballistic missile with a range of 2,000 kilometers (1,250 miles). According to a statement issued by Pakistan's Inter-Services Public Relations, "Pakistan today carried out a successful test fire of its long-range, surface-to-surface ballistic missile Hatt VI (Shaheen II) with outstanding results." The Hatt VI is a two-stage solid fuel missile which can carry nuclear and conventional warheads with high accuracy. An advanced version has a potential range of 2,500 kilometers (1,560 miles).

Prime Minister Shaukat Aziz witnessed the test, which took place at an undisclosed location. Aziz was quoted as saying, "Pakistan's strategy of credible minimum deterrence is fully in place and is a guarantee of peace in the region. We will continue to pursue vigorously our security and energy needs from all sources including nuclear."

Pakistan and India have signed an agreement to notify each other about ballistic missile testing ahead of the event, however the pre-notification of cruise missile tests is excluded from the treaty. India already has cruise missiles that can be launched from submarines.


HAWAII HOSTS MISSILE DEFENSE TEST AND X-BAND RADAR REPAIRS

On 28 April 2006, the US Missile Defense Agency (MDA) conducted a test of its missile defense system against a long-range target missile using counter-measures to thwart detection. No interceptor missile was fired in the test, which took place at the Pacific Missile Range Facility in Kauai, Hawai'i. The test only involved the system's array of radar and optical sensors.
MDA spokesman Rick Lehner declined to provide details about the counter-measures used. According to Lehner, "We launched a missile from Hawaii and it carried a package of what we call counter-measures. We used a variety of sensors to get data about those counter-measures as we flew. That helps us design a better interceptor so that we can defeat counter-measures as we make the intercepts."

The US has not had a successful long-range missile intercept test since October 2002. According to Lehner, the next intercept test is expected to take place this summer and the primary objective will be to test an upgraded radar in northern California at Beale Air Force Base. Lehner would not say whether the interceptor missile will be going against a target that employs counter-measures in that test.

In related news, seeping seawater has forced the sea-based X-band radar to abort a voyage from Hawaii to Alaska, delaying the $815 million device's arrival at its home port. The giant, white bulbous radar dome returned to Pearl Harbor mounted on its converted floating oil drilling platform four days after leaving O'ahu on 31 March 2006. According to MDA spokesman Pam Rogers, "It made more sense to come back into Pearl Harbor to do the repairs than to try to do them out on the open water."

The Project on Government Oversight, a Washington D.C.-based watchdog group, criticized the delay in the radar's deployment. Nick Schwellenbach, project investigator, said, "The X-Band Radar was supposed to be ready by the end of 2005, and here we are nearly midway through 2006 and no one can even get it to its home port in Alaska."


**Nuclear Energy & Waste**

**NEW JAPANESE REPROCESSING PLANT LEAKS RADIOACTIVE MATERIAL**

Just two weeks after startup on 31 March 2006, Japan's new reprocessing plant in Rokkasho leaked radioactive water. The facility, which is Japan's first plant to extract uranium and plutonium from spent nuclear fuel, spilled 40 liters (10.5) gallons of radioactive water inside a secure area. According to Japanese Nuclear Fuels Limited, which operates the plant, there was no impact on the outside environment or workers.

The spill occurred when a worker used a remote control to try to remove a plug from a wash tank inside the cell, which is protected by thick walls of reinforced concrete. But the worker also pulled parts that were connected to the plug. The radioactive water fell on a saucer inside the cell designed for such an incident and the worker managed to put the removed parts back.

The Rokkasho reprocessing plant has been extremely controversial since Japanese electric industry announced its plans in 1997 to use the plutonium and uranium extraction method to produce Mixed Oxide (MOX) fuel. The nuclear industry in Japan had set a plan to operate 16-18 MOX nuclear reactors by March 2011, but the goal has been stalled by a series of accidents and scandals. Environmentalists and local residents have also consistently protested against the project since its inception.


**MINNESOTA NUCLEAR PLANT WORKERS EXPOSED TO RADIATION**

On 9 May 2006, the US Nuclear Regulatory Commission announced that an accidental release of radioactive gas at a nuclear plant in southeastern Minnesota exposed about 100 workers to low levels of radiation on 2 May 2006. According to Jan Strasma, an NRC spokesman, the Prairie Island plant was shut down for maintenance and refueling at the time, and no radiation was released outdoors. Nuclear Management Co., which operates the plant for Xcel Energy, said residual radioactive gas in some equipment was inadvertently released without being routed through a filtering system.

Arline Datu, spokeswoman for Nuclear Management Co., said that the workers were wearing protective gear when they were exposed to low levels of radioactive iodine. According to Datu, most received 10 to 20 millirems of radiation, about the same as a dental X-ray. They were decontaminated and allowed to go home.
FOUNDATION CO-SPONSORS PANEL AT UN COMMISSION ON SUSTAINABLE DEVELOPMENT

On 5 May 2006, the Nuclear Age Peace Foundation co-sponsored a panel with GRACE Policy Institute, Women's International League for Peace and Freedom and Forum for Environment and Development at the Conference on Sustainable Development taking place at the United Nations. Panelists discussed problems with nuclear power from a number of perspectives: health, holistic, environment, economics, and proliferation concerns. Panelists included: Dr. Helen Caldicott; Kathy Wan Povi Sanchez, Tewa Women United; Michele Boyd, Legislative Director at Public Citizen; and Carah Ong, Washington DC Office Director of the Nuclear Age Peace Foundation. To read a report from the panel, visit: http://www.wagingpeace.org/blog/2006/05/nuclear_power_is_not_sustainable_1.html#more.

All the panelists supported the International Sustainable Energy Agency proposed by the panel's moderator, Alice Slater, President of GRACE Policy Institute. To learn more about the International Sustainable Energy Agency, visit: http://www.gracelinks.org/energy/international/.

SUMMER INSTITUTE ON TEACHING NONPROLIFERATION

Middlebury College and the Monterey Institute's Center for Nonproliferation Studies welcome applications from college faculty for the fourth annual Summer Nonproliferation Institute, to be held 21-25 June 2006, at Middlebury College. This summer workshop will provide training to faculty members interested in developing courses dealing with the proliferation of weapons of mass destruction (nuclear, chemical, or biological) and related nonproliferation policies. Experts from universities, think tanks, and the US government will speak. Accepted participants will be provided free room and board and a travel stipend of up to $250. Applicants should send a current resume and a short letter of interest by 30 April 2006, to the Rohatyn Center for International Studies at cfia@middlebury.edu. E-mail applications only, please. Participants will be accepted on a rolling basis. For more information, visit: https://segue.middlebury.edu/sites/nonproliferation.

HIROSHIMA AND NAGASAKI FOR COLLEGE TEACHERS

Hiroshima and Nagasaki for College Teachers is a one-week workshop that will be held at Illinois Wesleyan University from 26-30 June 2006. The workshop provides resources and planning for a general education course or units dealing with "All Things Nuclear" and "The Legacy of Hiroshima and Nagasaki." The workshop is led by Raymond G. Wilson, Ph.D., Emeritus Associate Professor, Physics Department, Illinois Wesleyan University, and supported by The Cities of Hiroshima and Nagasaki and the AAC&U SENCER Project.

Illinois Wesleyan University has unusual success with its course, "Problems of Nuclear Disarmament." It deals with what journalists have voted to be "The Story of the Century." Students apparently wish to know about their futures and the challenges they may have to face.

Professor Raymond G. Wilson began teaching about the effects of nuclear war in 1959. He has spent eight summers of study in Hiroshima. In 1979 the "Problems of Nuclear Disarmament" course was created.

Perhaps on your campus there already exists a course which deals with the problems of nuclear war, and the social, biological, and physical effects on the cities and people of Hiroshima and Nagasaki wherein the death toll was well beyond 200,000. We believe such courses are rare. We further believe that college teachers can develop unique understandings and approaches to the problems brought about by contemporary threats to world peace, including nuclear weapons.

In 2002 and 2003 this one-week Workshop was offered solely for physics teachers. It is now available to all college teachers.

You will find below some of the topics of "Problems of Nuclear Disarmament" as taught at Illinois Wesleyan. Would a course something like this fit into the offerings at your institution? If you have interest in developing such a course, or units, about this topic; or if you wish to contribute additional insights and resources to such coursework, we invite you to join us. Here you will find in one place all the resources necessary to provide a good background and stimulus for you and your students in this "Problem of the Century."

Contact Ray Wilson at rwilson@iwu.edu if you are interested in participating in this workshop.
CHERNOBYL 20 YEARS ON

The European Committee on Radiation Risk (ECRR) has just published a new report in book form entitled Chernobyl 20 Years On: Health Effects of the Chernobyl Accident. This first report of the ECRR is intended for regulators and those who have to make decisions about the health effects of radioactive releases. It presents a rational model for calculating the health risks of exposure to ionizing radiation. Unlike the existing framework of modeling radiation risk, the ECRR model uses evidence from the most recent research, from new discoveries in radiation biology and from human epidemiology to create a system of calculation which gives results which are in agreement both with the mechanism of radiation action at the level of the living cell and observation of disease in exposed population.

For more information or to order a copy, please visit: http://www.euradcom.org/2003/ecrr2003.htm

NUCLEAR POWER - UNSUSTAINABLE, UNECONOMIC, DIRTY AND DANGEROUS ON TEACHING NONPROLIFERATION

"Nuclear Power - Unsustainable, Uneconomic, Dirty and Dangerous" is a new report prepared by Greenpeace International for the United Nations Commission on Sustainable Development. "The world needs safe, clean and affordable renewable energy. The Johannesburg Plan of Implementation (JPOI) called for energy that is "reliable, affordable, economically viable, socially acceptable and environmentally sound." Nuclear power does not meet these criteria. The dilemma between building nuclear power or suffering the effects of climate change is a false dilemma. Nuclear energy is slow to build, dirty, dangerous and expensive. Nuclear energy, with its inflexibility, generation of waste, inherent danger and security implications, as well as its hidden costs, undermines economic development, social development and environmental protection. Investments of human and economic resources are far better placed into energy efficiency and the numerous renewable technologies available to guarantee the right to safe, clean and affordable energy.

To read the full report, visit: http://www.greenpeace.org/international/press/reports/nuclear-power-unsustainable.

"I have said publicly no option should be off the table, but I would certainly take nuclear weapons off the table. And this administration has been very willing to talk about using nuclear weapons in a way we haven't seen since the dawn of a nuclear age."

Senator Hillary Clinton (D-NY)
Speaking on Meet the Press in regards to announcements that the Bush Administration is considering using nuclear weapons against Iran. 9 April 2006

"It's really just geared toward a very limited attack from a country like North Korea."

Rick Lehner, Missile Defense Agency Spokesperson
Speaking in regards to Vandenberg Air Force Base and the missile defense complex during the rededication of VAFB to its new name, the Ronald W. Reagan Missile Defense Site. 10 April 2006

"There are some very hard targets out there and right now it would be extremely difficult if not impossible to defeat with current conventional weapons. Therefore there are some that would probably require nuclear weapons."

Doug Bruder, Director of the Counter-Weapons of Mass Destruction program for the Defense Department's Defense Threat Reduction Agency
Speaking to reporters during a tour of the Nevada Test Site in regards to the 2 June 2006 planned Divine Strake test.

"We in the kingdom do not need (nuclear weapons). ... We do not approve of nuclear weapons or their proliferation."

Crown Prince Sultan
Comments made to the press in response to rumors that Saudi Arabia is seeking nuclear weapons. 18 April 2006.

Editorial Team

David Krieger
Carah Ong

The Sunflower, eNewsletter of the Nuclear Age Peace Foundation, No. 108

May 2006