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these weapons or the materials to make them will find their way into the hands of terrorists; third, the weapons will be used again, by accident or design; fourth, cities will be destroyed, causing untold suffering and harm; and fifth, there will be no winners in a nuclear war.

Scientists can play an important role in preventing nuclear war, because they have the training to comprehend the magnitude of the resulting destruction. Scientists, and especially those that brought nuclear weapons into the world or who have worked on developing or improving them, have particular responsibilities to awaken the public to the dangers of the continuing nuclear threat to humanity and all life. Scientists possess voices of authority and can be influential by taking a strong moral stance, speaking out publicly and condemning their colleagues who continue to work on the development and improvement of nuclear arms.

To read the full article, please visit: http://www.waging-peace.org/articles/2005/11/00_krieger-responsibility-of-scientists.htm.

Perspectives

THE ABOLITION OF NUCLEAR WEAPONS AND WAR: THE RESPONSIBILITY OF SCIENTISTS

by David Krieger

The abolition of nuclear weapons and war requires a leap in our thinking. How do we get from the world we live in to one without nuclear weapons and war? How do we even muster the optimism to believe that such a world is possible? How do we contribute to making a difference in achieving such a world? And what is the responsibility of scientists in this endeavor, I would say, this noble endeavor?

Perhaps there are more questions than answers. But the starting point in our thinking should be the necessity of change. The fact that nuclear weapons have not been used in warfare since Hiroshima and Nagasaki is not predictive that they will not be used again.

The survivors of Hiroshima and Nagasaki have long said, "Human beings and nuclear weapons cannot co-exist." Over time, certain consequences are inevitable if nuclear weapons are relied upon for security: first, more countries will desire these weapons, and they will proliferate; second,

Take Action

ACT TO KEEP DRINKING WATER SAFE FROM PLUTONIUM CONTAMINATION

The Institute for Energy and Environmental Research (IEER) invites you to send a letter to the U.S. Environmental Protection Agency (EPA) asking it to tighten the drinking water limit for plutonium and other alpha-emitting, transuranic long-lived radionuclides. Join other groups and individuals in telling the EPA that the drinking water limit for such contaminants must be strengthened to protect public health and to reflect the most recent scientific assessments of the radiation doses of these radionuclides.

The goal is to get the EPA to change the combined Maximum Contaminant Limit (MCL) for alpha-emitting, long-lived transuranic radionuclides from 15 picocuries per liter to 0.15 picocuries per liter.

The agency is expected to begin its legally-mandated review of drinking water limits for radionuclides in 2006, so now is a good time to send EPA this message.

If you are concerned about the potential impact of too much

radiation in your family's drinking water, please send EPA a message. The more letters sent, the more pressure EPA will feel, and the better the chances that the agency will act to strengthen the drinking water standard.

This action remains valid until the EPA concludes its review, probably in late 2006. To take action, visit:
<http://capwiz.com/wagingpeace/issues/alert/?alertid=8243821&type=CJ>.

The scientific basis for strengthening the drinking water MCL for plutonium and similar radionuclides is described in the technical analysis by the Institute for Energy and Environmental Research (IEER), entitled "Bad to the Bone: Analysis of the Federal Maximum Contaminant Levels for Plutonium-239 and Other Alpha-Emitting Transuranic Radionuclides in Drinking Water." The report is available online at
<http://www.ieer.org/reports/badtothebone/index.html>

Nuclear Legacy

WAR VET APOLOGIZES FOR GUAM RADIATION COVER-UP

On 4 November 2005, a retired Navy lieutenant who discovered radioactivity on Guam three days after a hydrogen bomb test in the Marshall Islands in 1952, apologized to the island's residents for withholding the information for five decades. According to Robert Celestial, President of the Pacific Association of Radiation Survivors, retired Lt. Charles Bert Schreiber offered a formal apology at a prayer vigil highlighting the commemoration of Operation Ivy Mike. The Ivy Mike operation that involved the detonation of a hydrogen bomb in the Eniwetok Atoll on 1 November 1952, produced an explosion more powerful than all the allied bombs dropped on World War II Europe.

Schreiber, now 82, was deployed to Commander Naval Forces Marianas on 27 October 1952 as an atomic, biological and chemical warfare defense officer. Schreiber accidentally detected the presence of alpha particles, the nucleus of a helium atom, in Guam waters while checking the Geiger counter. He didn't make any public disclosure about the detection of radioactive materials until he finally blew the whistle during his testimony before the Blue Ribbon Panel on Radioactive Contamination on Guam on 30 July 2001. In his testimony, Schreiber told the investigating panel that he informed top officials at the admiral's office about the radioactive fallout. He was told to ignore "the radioactivity and to keep my mouth shut, period."

Source: "War Vet to Apologize for Guam Radiation Cover-up," *Marianas Variety*, 4 November 2005.

Nonproliferation

KAZAKHSTAN NEARS COMPLETION OF HIGHLY ENRICHED URANIUM CONVERSION

On 8 October 2005, Kazakhstan and US officials announced that they were almost finished with the conversion of tons of nuclear weapons-grade uranium. Since 2002, Kazakhstan's nuclear agency and the Nuclear Threat Initiative, have spent millions of dollars to downblend weapons-grade material into uranium that could be used in power plants.

Kazakh President Nursultan Nazarbayev considers this a moderate victory in keeping nuclear weapons away from terrorists. According to Nazarbayev, "Now we are capable of converting the highly enriched uranium, or any remains of that uranium, into low-enriched uranium. Maybe one day our factory here in Kazakhstan can be a place where highly enriched uranium from other countries can be processed into a low-enriched form."

When the Soviet Union collapsed, Kazakhstan became the fourth largest nuclear power with 1410 warheads. As Kazakhstan became an independent nation, it gave up its weapons program and had the warheads moved to Russia. However even after that, much of the material to make the bombs remained inside the country, including millions of tons of radioactive waste.

Kazakhstan leaders were afraid that the combination of out of work scientists, radioactive waste, economic decline and the proximity to terrorists could have disastrous consequences. The atomic waste needed to be disposed of. By the end of this year 6,400 pounds of highly enriched uranium will be converted into less than 5% enriched uranium.

Since the project's inception, the International Atomic Energy Agency has been monitoring the site on cameras. Journalists and a delegation from the US inspected the Ust-Kamenogorsk site, which is 560 miles east of Astana, the capital of Kazakhstan. Former Senator Sam Nunn (D-Georgia), chair of the Nuclear Threat Initiative, toured the facility and stated, "Today, the most devastating threat is a terrorist attack with the use of nuclear weapons."

Although President Nazarbayev was optimistic about the project, stating, "Some countries are allowed to have nuclear weapons and modernize them. Other countries are banned from having them, even to do research. It's wrong, disproportionate and unfair."

Source: *Bukharbayeva, Bagila, "Nations Hail Project to Destroy Nuke Fuel," Associated Press, 8 October 2005.*

BRITAIN, FRANCE AND US REITERATE OPPOSITION TO PROPOSAL FOR CENTRAL ASIAN NUCLEAR-FREE ZONE

Recently, British, French and US ambassadors to the UN have reiterated their objection to a proposal that would create a nuclear weapon free zone in Central Asia. The five nations of Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and Turkmenistan have been deliberating the terms of a Central Asian Nuclear-Weapons Free Zone (CANWFZ) since 1997. Internal and external conflicts over the terms of the treaty have drawn out the drafting process.

The most recent letter of objection from France, Britain and the US is unclear about what the specific objections are. However, there has been concern in the past that this type of treaty would minimize a US military presence in those areas. US mission spokesman Richard Grenell stated, "A nuclear weapons free zone treaty must ban from the territory of its parties the deployment of nuclear weapons by anyone, no exceptions whatsoever."

If ratified, vehicles that are fueled by nuclear means or that carry nuclear payloads would not be allowed to travel through those countries. This region is considered strategically important to the US because of its proximity to Afghanistan and Iran.

Supporters argue that the treaty will help strengthen international efforts towards non-proliferation and that not ratifying this treaty could destabilize the region. While none of the Central Asian countries possess nuclear weapons, a nuclear free zone will prevent other countries, such as the US and Russia, from deploying in the region.

The CANWFZ can be established with only the agreement of the five countries involved. However the support of Russia, China, Britain, France and the United States would significantly help the process. Russia and China have already endorsed the treaty.

Source: Wadhams, Nick, "UK, France, US: No Central Asia Nukes," Associated Press.

NEW REPORT DOCUMENTS COMPANIES AND ORGANIZATIONS OF PROLIFERATION CONCERN

On 7 October 2005, British Intelligence released a report stating it appears that many Asian countries are procuring goods or technology that could be potentially used for nuclear weapons programs. The 17-page document, titled "Companies and Organizations of Proliferation Concern," cautions British companies about accidentally exporting technology that could be used for nuclear weapons programs.

Stating that the market for nuclear technology was much greater than previously thought, the report lists 360 private companies, university departments and government organizations in eight countries. Among the countries mentioned, 95 organizations in Pakistan are identified, including the Pakistani High Commission in London; 114 in Iran, including chemical and pharmaceutical companies and university medical schools; 73 in India and 11 in Israel.

The United Arab Emirates is considered to be the center for the trade of nuclear technology and is thought to be the country of most concern. Twenty-four private firms in the UAE have assisted Iran, Pakistan and India in obtaining nuclear technology.

The document specifically states, "It is not suggested that the companies and organizations on the list have committed an offence under UK legislation. However, in addition to conducting nonproliferation-related business, they have procured goods and/or technology for weapons of mass destruction programs." It also goes on to state that there could be more organizations than identified.

Representatives from Pakistan and the United Arab Emirates have denounced the report.

Source: Cobain, Ian and Ewen Macaskill, "Nuclear arms supermarket doing a roaring trade," The Guardian, 10 October 2005.

US TO MAINTAIN NUCLEAR UMBRELLA OVER SOUTH KOREA

On 21 October 2005, US Defense Secretary Donald Rumsfeld and South Korean defense Minister Yoon Kwang-ung made an announcement over the renewed agreement following the "37th Security Consultative Meeting to reaffirm the nuclear umbrella over South Korea." Both US and South Korean officials involved in the meeting have defended their decision by stating that North Korea's nuclear weapons and missile program "are causes for significant concern." However, many South Korean officials are calling for an immediate reassessment of the agreement.

Critics of maintaining the umbrella argue that reaffirming an aggressive nuclear posture in South East Asia will jeopardize the latest progress made in disarming North Korea's nuclear program. Only in the past two months, after several rounds six-party talks, has North Korea pledged to end its nuclear arms program and re-join the Non-Proliferation Treaty.

Sources: Shanker, Thom, "Rumsfeld and South Korea Defense Chief Agree to Keep Status Quo," New York Times, 22 October 2005; "South Korea Urges Pyongyang to Declare All Nuclear Weapons, Programs, Installations," Global Security Newswire, 20 October 2005.

US NAVY TO STATION NUCLEAR-POWERED AIRCRAFT CARRIER IN JAPAN

On 27 October 2005, the US Navy announced that US and Japanese officials have agreed to allow the Navy to station a nuclear-powered aircraft carrier in Japan for the first time. Although US troops have been based in Japan since the end of World War II, the Japanese public has long been wary of a US nuclear presence because of concerns about possible radiation leaks.

According to the US Navy statement, "The security environment in the Western Pacific region increasingly requires that the US Navy station the most capable ships forward." The carrier's deployment will "fulfill the US government's commitment to the defense of Japan, and the maintenance of international peace and security in the Far East."

Nuclear-powered warships have visited Japanese ports more than 1,200 times since 1964. The Navy said the US has provided firm commitments to Japan's government on the safe use of Japanese ports by the nuclear-powered warships, and it pledged to observe strictly all safety precautions.

Source: "Japan to Allow Nuclear-Powered Warship," Associated Press, 28 October 2005.

BRITAIN WEIGHS NUKE UPGRADES

Members of Parliament and high level officials are criticizing Prime Minister Tony Blair over a proposed program to upgrade the British arsenal by replacing their Trident nuclear missiles. Concerned over the potential cost of the program, three members of British Parliament have put together a resolution questioning the necessity of the upgrade.

The average annual cost of running Britain's Atomic Weapons Establishment has been \$524 million since 2000. Next year's expenditure is expected to increase to \$886 million, and to continue to rise. The proposed program could cost as much as €20 billion pounds (US\$36 billion). Many feel that the cost of the program is too much considering that nuclear deterrence is ineffective against terrorist organizations.

Acknowledging the concerns, Prime Minister Blair feels that a modern nuclear weapons program is necessary. According to Blair, "Although I don't think anyone pretends that the independent nuclear deterrent is a defense against terrorism, nonetheless I do believe it's an important part of our defense."

Supporting Tony Blair's statement Defense Minister John Reid said, "No decisions on replacing Trident have yet been taken, but these are likely to be necessary in the current parliament. It is too early to rule in or out any particular option."

Other critics of the decision argue that upgrading the British weapons program goes against the spirit of the Non-Proliferation Treaty, to which Britain is a member. Any move towards new nuclear weapons could further weaken the anti-nuclear regime and nonproliferation efforts worldwide.

Currently, Britain has four submarines that are capable of launching Trident Missiles. Each ship has 16 multiple war-head nuclear missiles that could reach as far as 12,000 kilometres (7,500 miles).

Sources: "British Leaders Oppose Nuclear Arsenal Upgrade Plan," Global Security Newswire, 14, September 2005; "Blair determined to keep Britain's nuclear weapons," AFP, 19 October 2005.

Nuclear Insanity

PAT ROBERTSON ACCUSES HUGO CHAVEZ OF NUCLEAR WEAPONS ASPIRATIONS

On 10 October 2005, Pat Robertson, founder of the Christian Coalition, accused Venezuelan President Hugo Chavez of attempting to acquire nuclear material from Iran in an interview on CNN's "Late Edition." Robertson made the allegations less than two months after calling for Chavez to be assassinated on his "700 Club" television show on 22 August 2005.

"One day we're going to be staring at nuclear weapons and it won't be Katrina facing New Orleans, it's going to be a Venezuelan nuke," Robertson said.

Robertson also said that "sources that came to me" informed him that Chavez has sent \$1.2 million to Osama bin Laden since 11 September 2001. According to Robertson, Chavez has also befriended Moammar Gaddafi of Libya and others among "these people who are considered terrorists," has set up a "Marxist dictatorship" in Venezuela, and is trying to spread Marxism in South America.

Source: "Robertson Accuses Chavez of Seeking Nuclear Material from Iran," Washington Post, 10 October 2005.

NEW STUDY CONCLUDES US "MAY HAVE TO LIVE WITH" NUCLEAR IRAN

The US should not attempt to dismantle Iran's nuclear weapons program, but instead focus on deterring Iran once it becomes a nuclear power, according to two US-funded researchers who advise the Pentagon. The potential for rolling back Iran's program, once it produces a nuclear weapon, "is lower than preventing it in the first place and the costs of rollback may be higher than the costs of deterring and containing a nuclear Iran," Judith Yaphe and Air Force Col. Charles Lutes wrote in a report released on 13 October 2005. Despite evidence to the contrary, the report regards it as an inevitable occurrence that Iran will soon possess nuclear weapons.

Yaphe and Lutes are senior fellows at the National Defense University's Institute for National Strategic Studies, which does policy research for the Department of Defense (DoD).

"Can the United States live with a nuclear-armed Iran? Despite its rhetoric, it may have no choice," the report states. Yaphe and Lutes also claim that the Israeli government regards "a nuclear-armed Iran" as "a clear and present danger," and most Israeli strategists "do not question if Israel should seek to remove Iranian nuclear facilities," only how it should be done.

However, the researchers caution that US or Israeli military action would likely rally Iranians around their current government, and they also warn that there is an "extremely high risk that the Iranian regime would use its nuclear weapon in a last-ditch efforts to save itself" in the event of a US or Israeli military offensive.

The report concludes that, contrary to US government concerns, "Iran would not, as a matter of state policy, give up control of [nuclear weapons] to terrorist organizations."

While US intelligence insists that Iran could potentially produce a nuclear weapon in about a decade, the country continues to claim that its aim is peaceful nuclear energy.

Source: "World May Have to Live with Nuclear Iran - US Study," Reuters, 13 October 2005.

NEW HIGH-POWER MICROWAVE BOMB BEING DESIGNED

The Pentagon is turning to high-power microwave (HPW) bomb designs as a new approach for attacking "deeply buried and hardened targets." According to Aviation Week & Space Technology, the HPW bombs have been developed to fit in the casings of 5,000-pound class GBU-28 aerial bombs, weapons improvised from 8-inch howitzer barrels that were used against Iraqi bunkers during the 1991 Gulf War. The weapons are designed to generate a large spike of electrical energy, which would pulse through rock and cement strong enough to disable electric communications and computer equipment. It is unclear how these weapons would address threats from nuclear, chemical or biological weapons.

Source: Aviation Week & Space Technology, page 23, 17 October 2005.

Nuclear Insecurity

NUCLEAR REACTORS AT CAMPUSES REMAIN PRONE TO TERRORIST ATTACK

Most nuclear research reactors at universities across the United State have not installed protection against potential terrorist attacks, according to a recent Boston Globe article. Although these facilities are fueled by highly enriched uranium, the easiest material in the world for terrorists to use to make a nuclear bomb, there are no guards at these sites, no fences, and no security cameras.

In 1986, the Nuclear Regulatory Commission, which oversees these facilities, recognized this danger and ordered all the reactors it regulates to convert to low-enriched uranium. Low-enriched uranium cannot be used as the core of a makeshift nuclear bomb. The reactors were supposed to convert to this type of fuel as soon it was available. Although it is now available, the facilities have still not yet done so, largely because the Department of Energy has yet to come up with the money for the switch.

The cost of conversion ranges from only \$1 million to a few million dollars, a comparatively small amount, but most money is drawn from expenditures for nuclear research, the funds for which are overwhelmingly devoted toward research on nuclear weapons.

Source: Bunn, Matthew, "The Nuclear Campus," Boston Globe, 20 October 2005.

US DEFENSE SECRETARY CRITICIZES CHINESE OVER MISSILES, DEFENSE EXPENDITURES

On 20 October 2005, during the last day of his visit to China, US Defense Secretary Donald Rumsfeld spoke at the Academy of Military Sciences in Beijing. During his opening remarks Rumsfeld criticized China's expanding missile forces. "China appears to be expanding its missile forces, enabling them to reach many areas of the world, beyond the Pacific region. Such improvements in China's strategic strike capability give cause for concern," Rumsfeld said. He went on to criticize the secretive nature of China's military buildup, "To the extent that defense expenditures are considerably higher than what is published, neighbors understandably wonder what the reason might be for the disparity between reality and public statements."

The day before, on 19 October, Rumsfeld delivered a similar condemnation of China's military spending during remarks made at the Central Party School in Beijing. "Many countries," Rumsfeld said, "have questions about the pace and the scope of China's military expansion. A growth in China's power projection understandably leads other nations to question China's intentions, and to adjust their behavior in some fashion. The rapid, non-transparent nature of this buildup contributes to their uncertainty."

Prior to Rumsfeld's visit to China a report was released describing China's numerous short-range ballistic missile tests over the last year. According to the report, a decade ago China test-fired only a handful short-range missiles per year, but by 2003 China was testing 100 short-range missile each year. The short-range missiles, with a range up to 360 miles, have been deployed on its coastline across from Taiwan and Japan. Relations between China's neighbors have deteriorated as the buildup of these short-range missiles has increased. It is estimated that China has deployed 730 surface-to-surface, surface-to-air and anti-ship missiles along the Taiwan straight alone. Such a missile build-up, besides threatening Taiwan, serves as a deterrent to US naval forces from operating too close to the region.

China's publicly disclosed military budget this year is \$30 billion, but the US Defense Department says the real figure is three times larger, close to \$90 billion. Many believe Rumsfeld's comments inadvertently highlighted Washington's fears about Beijing's rising military power.

Sources: US Department of Defense Press Releases; "US concerned by China missiles," BBC News, 20 October 2005; Sieff, Martin, "BMD Focus: China relies on missiles," United Press International, 20 October 2005.

RUSSIAN MISSILE TESTS

As part of Russia's ongoing missile replacement and readiness program, a Volna submarine launched ballistic missile was test fired from the Borisoglebsk nuclear submarine on 8 October 2005. The missile was fired from the Barents Sea and successfully impacted a target in the Kura training area on the Kamchatka peninsula.

On 20 October a Stiletto intercontinental ballistic missile was also test fired, shot from the Baikonur cosmodrome in Kazakhstan and impacting in the Kura testing range on Kamchatka. Russia's Strategic Missile Troops have about 160 Stiletto missiles, each with a range of over 10,000 kilometers (6,000 miles). The Stiletto is one of Russia's most sophisticated intercontinental ballistic missiles.

Finally, on 1 November 2005, a Sickle intercontinental ballistic missile was test fired from the Kapustin Yar testing range, successfully impacting a target on the Balkhash training range in Kazakhstan. The first successful test flight of the Sickle took place on 8 February 1983. Colonel Alexander Vovk, spokesman for Russia's Strategic Missile Forces said the launch was meant "to confirm the flight characteristics of the missile under an extended service-life."

Sources: "Russia Test-Launches Ballistic Missile," *MosNews*, 8 October 2005; "Russia test-fires intercontinental ballistic missile," *People's Daily Online*, 21 October 2005; "Topol missile warhead successfully hits target," *ITAR-TASS*, 1 November 2005; "Russian Military Successfully Test-launches Topol ICBM" *MosNews*, 2 November 2005.

GROUND-BASED MIDCOURSE MISSILE DEFENSE SYSTEM ON THE DEFENSIVE

The US Senate Appropriations Committee included a scathing critique of the Ground-based Midcourse Defense (GMD) system in its version of the Fiscal Year 2006 Defense Appropriations Bill. The report lambasted White House and Defense officials for their unwillingness to invest more capital, political and financial resources in the unproven missile defense system.

In its report, the Committee equates the level of complexity and challenges in deploying the midcourse defense system to the Manhattan Project. The Committee also expresses a lack of confidence in the Missile Defense Agency (MDA) to take advantage of years of funding and research to fully develop the Ground-Based Interceptor missile (GBI). The GBI has a poor success ratio: five successful tests in ten attempts. The Committee urges the MDA to pursue a rigorous series of tests and additional engineering to see the project through, adding \$200 million in appropriations to ensure the GBI is developed.

The Committee rebuked the MDA for considering breaking up the GMD program and abandoning future upgrades to the system. According to the Committee, separating the GBI from other parts of the GMD system, including command

FORMER NUCLEAR WEAPONS FACILITY TO BECOME NATIONAL WILDLIFE REFUGE

and control and advanced radar systems, risks wasting much of the time and money already invested in the program. The GBI draws huge amounts of MDA appropriations, an estimated \$3.3 billion for 2006 alone, nearly half the MDA budget.

According to a statement made on 28 January 2005 by Trey Obering, MDA Director, the MDA would not pursue major booster or kill vehicle upgrades for the GBI despite five failed tests in ten attempts. The Committee found this unacceptable and directed Obering to provide a plan for the complete and integrated development of the GMD system by 1 December 2005. According to the Committee, "(Obering's) report will include the spiral development plan for the current GBI, consisting of the EKV (Exo-atmospheric Kill Vehicle) and its boosters, and the rest of the GMD integrated defensive system. The plan must clearly explain how we are leveraging our national investment in GMD and achieving both near-term war fighting capability improvements as well as robust longer-term plan and vision for upgrading GMD."

The Senate Committee recommended a total of \$7.9 billion for the Missile Defense Agency (MDA) in its version of the 2006 Defense Appropriation Bill, nearly \$1 billion below the FY 2005 appropriation.

Sources: Ruppe, David, "White House May Reconsider Missile Defense Approach," Global Security Newswire, 7 October 2005; "US Gives up on upgrading missile defense," United Press International, 13 October 2005; US Senate Committee on Appropriations.

US SUCCESSFULLY TESTS AEGIS MISSILE DEFENSE COMPONENTS

On 4 October 2005 Lockheed Martin announced the successful test of the prototype Aegis Ballistic Missile Defense Weapon System's Signal Processor (BSP). The Aegis BSP aboard the guided missile destroyer USS Russell successfully tracked an advanced ballistic missile target launched over the Pacific Ocean. Officials reported the BSP provided real-time detection, tracking and discrimination, and proved capable of discerning between the separated re-entry vehicle and its countermeasures.

Defense officials plan to deploy 15 Aegis destroyers and three Aegis cruisers capable of engaging short and medium range ballistic missile threats with its Standard Missile-3 (SM-3) as well as tracking and surveillance of long-range missiles. So far, eight Aegis destroyers and two Aegis cruisers have been upgraded with the latest missile defense technologies.

Source: "Aegis BSP tracks advanced ballistic missile target," Sea Services Weekly, 13 October 2005.

On 7 October 2005, the last of more than 62,000 waste shipments departed Rocky Flats, Colorado, signaling the end of a massive 10-year cleanup effort at the former nuclear weapons facility.

The Rocky Flats cleanup and closure project was managed by Kaiser-Hill Company under an accelerated closure contract. The project involved removing more than 21 tons of weapons-usable nuclear material, decontaminating and demolishing 800 structures, shipping more than 600,000 cubic meters of radioactive waste and much more. Kaiser-Hill spokesman John Corsi described the cleanup as the most complex environmental cleanup in US history, adding, "It's the first nuclear weapons site to be cleaned up and closed anywhere in the world."

The US Department of Energy (DOE) initially projected the cleanup would take 60 years and cost \$36 billion. Kaiser-Hill completed the task in ten years at a cost of about \$7 billion, entitling Kaiser-Hill to a \$560 million bonus.

In the coming weeks the DOE will inspect the site and transition Rocky Flats to the US Fish & Wildlife Service to become the Rocky Flats National Wildlife Refuge.

However, serious and well-founded doubts exist as to the level of contamination that remains at Rocky Flats. Some environmental activists contend the DOE and Kaiser-Hill secretly agreed to cut corners in the cleanup project.

From 1952 until 1989 the Rocky Flats Site produced plutonium and enriched uranium triggers for nuclear weapons. In fact, every nuclear weapon in the US arsenal contains triggers produced at Rocky Flats.

Sources: Hartman, Todd, "Rocky Flats wraps up radioactive cleanup," Rocky Mountain News, 8 October 2005; Moore, LeRoy, "'Extreme makeover' for Rocky Flats is less than impressive," Christian Science Monitor, 28 October 2005.

US NUCLEAR INDUSTRY PLAGUED WITH PROBLEMS

On 1 October 2005, Richard Haynes of Killen, Alabama, was struck by heavy equipment while working inside the Unit 1 reactor at the Browns Ferry nuclear power plant. Haynes died from his injuries on 6 October 2005. The reactor has been out of service since 1985 when the plant was shut down amid safety concerns following the accidental death of a plant worker. Haynes was part of a team working to bring Unit 1 back online. Officials hope to restart the reactor by 2007.

On 11 October 2005, the largest nuclear power plant in the US was shut down because of significant safety concerns. Two of the three reactors at the Palo Verde Nuclear Generating Station, located in Arizona, were shut down because officials couldn't prove the emergency cooling system would operate effectively. Jim McDonald, a spokesman for the plant operator Arizona Public Service Company, said the problem is, "not that the system wouldn't operate. It's that we couldn't prove that it would." The third reactor at Palo Verde was shut down for refueling on 7 October. Palo Verde supplies electricity to about 4 million customers in the South Western US.

On 18 October 2005, officials from the US National Aeronautics and Space Administration (NASA) revealed that soil samples taken from a Lake Erie tributary contain a number of radioactive isotopes. The radioactive Cesium 137 and Cobalt 60 are byproducts of NASA's Plum Brook nuclear test reactor, located four miles south of Sandusky, Ohio. The nuclear reactor was operational between 1961 and 1973, and is currently being decommissioned. State health officials are not sure if the radioactivity discovered off-site is significant enough to warrant cleanup or even posted warnings.

Sources: "Worked Dies After Nuclear Plant Accident," Associated Press, 7 October 2005; "Safety concerns shut Palo Verde nuclear plant, nation's biggest," Associated Press, 13 October 2005; Henry, Tom, "Radioactivity found in Lake Erie tributary," Toledo Blade, 19 October 2005.

US BREAKS GROUND AT MIXED OXIDE FUEL FACILITY

On 14 October 2005, US and Russian officials were present for a groundbreaking ceremony at the Mixed Oxide (MOX) fuel facility at the Savannah River Site in South Carolina. The facility will convert 34 tons of weapons grade plutonium into fuel for commercial nuclear power plants. However, funding the construction of the plant and its operation remains in question. The US Department of Energy (DOE) National Nuclear Security Administration (NNSA) has already received \$600 million to build to plant, but an additional \$1 billion is needed to fund its operation. Additionally, US and Russian officials have not yet finalized an ongoing dispute involving liabilities for a sister MOX plant to be constructed in Russia.

The DOE will incur a \$1 million a day fine should the US plant not meet the 2009 start of production deadline and DOE Secretary Samuel Bodman has expressed doubt that the US MOX facility will meet the deadline.

Disposing of the plutonium is a top priority, says US Senator Lindsey Graham (R-S.C). "What's it worth to the world to get 34 metric tons of weapons-grade plutonium off the Russian market?" Graham also said that other concerns "pale in comparison of what could be done if plutonium fell into the wrong hands."

Sources: "Officials hold groundbreaking for MOX nuclear fuel facility," Associated Press, 14 October 2005; "US Breaks Ground on Plutonium Fuel Facility," Global Security Newswire, 17 October 2005.

VIETNAM PLANNING TO DEVELOP NUCLEAR POWER PLANTS

On 19 October 2005 Vietnamese officials announced plans to build the country's first nuclear power plant in central Ninh Thuan province. Tran Thanh Lien, Chief of the Vietnam Atomic Energy Institute (VAEI) International Cooperation Department, said "We've submitted to the government a pre-feasibility study for building a 2,000 megawatt nuclear power plant, estimated to cost \$3.5 billion."

The Director of Vietnam's Atomic Energy Commission, Vuong Huu Tan, confirmed the plans to move forward with the nuclear power plant. Tan said, "We will have to import all fuel rods and equipment for the first plant with two reactors, but will strive to locally produce them for following reactors and plants. Potential foreign suppliers are France, the United States, Japan, Russia and Canada." Though a supplier and construction partnership has not been decided, Vietnam will work with France to sponsor an international seminar on nuclear energy safety and economic issues in early 2006. Future seminars and exhibitions are planned to build public support for nuclear energy.

Vietnam's only existing nuclear reactor became operational in 1984 and has been used for training and medical research. It has a capacity of 500 kilowatts. Deposits of uranium ore discovered in the northern and central regions of Vietnam have an estimated 210,000 tons of uranium-308.

Sources: "Vietnam to Build First Nuclear Power Plant in Central Region," RedNova News, 19 October 2005; "Vietnam Plans to Build First Nuclear Power Plant," Thanh Nien News, 20 October 2005; International Atomic Energy Agency.

JAPANESE URANIUM ORE, NOT WASTE, SHIPPED TO UTAH

At 8 am on 17 October 2005, a ship docked in the port of Everett, Washington, and about 500 tons of uranium ore from Japan was offloaded. Days later the ore began arriving at the International Uranium Corporation's White Mesa Mill in San Juan County, Utah.

A series of conflicting reports led some Utahans to believe that instead of uranium ore Japanese and US officials were shipping nuclear waste to Utah for permanent storage. The contradicting reports made it appear that radioactive waste from a defunct Japanese uranium mine was being shipped for storage in the US, which would have set a dangerous precedent for Utah to accept nuclear waste from other countries. A series of emails exchanged between state and federal officials added to the confusion. The emails show the officials themselves were initially uncertain about the exact nature of the material bound for Utah. The confusion led many to premature conclusions that, according to the Salt Lake Tribune, "the shipment signals that the state has opened a Pandora's box, making Utah not just a national destination for radioactive discards but now a global one."

In fact, the 500 tons of ore will be processed into uranium yellowcake, one of the earlier steps in developing fuel for nuclear reactors. International Uranium Corp. President Ron Hochstein confirmed the shipments are not waste, but actually ore. He said, "It's been proven to be ore, so we can accept this under our state radioactive-materials license...This is no different than any other ore we've taken from our mines, and it's not waste material."

In related Utah nuclear news, the US Department of Homeland Security said in a classified report the proposed nuclear waste dump at Skull Valley, Utah, presents a number of security challenges. Utah Senator Orin Hatch refused to comment on the classified findings, but did say "there is language that would cause anybody concern."

Sources: Fahys, Judy, "Japan sending trainloads of toxins to Utah," Salt Lake Tribune, 26 October 2005; "Utah Mill processing Japanese uranium into nuclear fuel," Associated Press, 27 October 2005; "Homeland Security report assess nuclear safety for Skull Valley," The Daily Herald, 30 October 2005.

Nuclear Laboratories

NNSA SEEKS TO EXPAND LANL PIT PRODUCTION

The National Nuclear Security Administration (NNSA) will soon ask for more money to expand plutonium pit manufacturing at the Los Alamos National Laboratory (LANL), according to NNSA Administrator Linton Brooks. For Fiscal Year 2006, Congress funded plutonium pit production at the full Bush administration request of \$248.76 million, with the exception that out of that \$7.69 million was deleted for the Modern Pit Facility (MPF).

Employees at LANL's Area 54 have produced a small quantity of pits since 2003, but if current plans hold, the number of pits manufactured there would expand to an annual total of 30 or more by 2010.

The pits would be used for the Reliable Replacement Warhead, for which Congress appropriated \$25 million (up from \$9.4 million requested by President Bush) for Fiscal Year 2006. The RRW program could produce the first new nuclear weapon manufactured by the US in roughly 15 years. The RRW program is being touted as a replacement for existing, Cold War-era weapons.

According to proponents, a new, more "reliable" warhead would reduce the number of spare nuclear weapons that would have to be maintained, without sacrificing the "robustness" of the US nuclear arsenal. Linton Brooks says the weapon could "be developed without underground nuclear test blast."

Los Alamos and the Lawrence Livermore National Laboratories are working to complete separate RRW designs by the middle of next year.

Source: Fleck, John, "Nuclear Agency Looks to Expand LANL Pit-Making," Albuquerque Journal, 22 October 2005; "House/Senate Energy and Water Development Appropriations Conference: Nuclear Weapons Highlights," Nuke Watch New Mexico, 15 November 2005; <http://www.nukewatch.org/facts/nwd/EWNukeHighlights.pdf>.

SANDIA KEPT WORKERS UNDER PHONE SURVEILLANCE

Security managers at Sandia National Laboratories regularly recorded telephone and radio conversations of security guards for at least two years, according to a Department of Energy (DOE) investigation.

The DOE Inspector General's investigators found no national security rationale for the recordings. Lab officials did not obtain workers' consent before recording the calls, which most often were in regard to "issues relating to leave, overtime, training, scheduling, and discipline." A similar report on Los Alamos National Laboratory is forthcoming and makes an allusion to "similar issues at Los Alamos Laboratory."

According to the Sandia National Laboratory report, inappropriate recording was stopped after the Inspector General's Office issued a formal "Management Alert" about the issue in May 2005. Sandia spokesman John German declined comment in an interview with the Albuquerque Journal.

Sandia is managed by Lockheed Martin Corporation on behalf of the DOE. Managers of Sandia's guard force told investigators they believed that routine recording of employee conversations was permitted because the guards had been informed of it during guard meetings. However, the notification did not take place until 19 January 2005, nearly two years after routine recording began.

Source: Fleck, John, "Sandia Bosses Secretly Tapped Workers' Calls," Albuquerque Journal, 5 October 2005.

LANL ESTABLISHES NEW CAMPUS PARTNERSHIPS

In what may be a dual effort on the part of Los Alamos National Laboratory (LANL) and University of California (UC) administrators to ensure a strong relationship in the event that the University of Texas-Lockheed Martin conglomerate wins the bid to manage the facility, both UC Santa Barbara (UCSB) and UC Santa Cruz (UCSC) have established direct partnerships with the lab for the first time.

At UCSB, the Institute for Multiscale Materials Studies (IMMS) has been created, a program "designed to meet critical training, recruiting and staff retention needs for a wide range of current and future national security missions... The program carries direct and long-term benefits to the Lab by providing a formal mechanism and pipeline for recruitment, training and retention of highly trained critical personnel in materials science and technology and access to university expertise."

According to Matthew Tirrell, Dean of the College of Engineering at UCSB, "Pretty much every department in the College of Engineering is involved in this endeavor."

Meanwhile, UCSC has established the Institute for Scalable

Scientific Data Management (ISSDM), a data storage and management project, as part of the Jack Baskin School of Engineering. The institute is touted as providing "opportunities for UCSC graduate students to gain specialized experience and expertise... by working on large-scale computing projects at Los Alamos." In addition, students who take part in the program will "provide a pool of potential employees for the laboratory with skills in key areas."

The project will largely serve to better enable storage of the data generated by Los Alamos' supercomputers, which run simulations of nuclear tests and various military scenarios.

LANL has recently established partnerships to form similar institutes with three New Mexico universities and UC San Diego.

Source: Stephens, Tim, "UCSC and Los Alamos National Laboratory to Form Partnership for Scientific Data Management," UC Santa Cruz Currents, 24 October 2005.

UNIVERSITY OF COLORADO STUDENTS PROTEST CU'S INVOLVEMENT WITH LOS ALAMOS

In a hearing on 30 September 2005, students at the University of Colorado (CU) at Boulder, joined by numerous community members, spoke out strongly against the university's partnership with the University of Texas and Lockheed Martin in their bid to manage the Los Alamos National Laboratory (LANL).

The CU Board of Regents asked for the forums in early-September, following spirited protests by students, who called for a more open debate about CU's potential role in the lab. No regents actually showed up at the meeting, though. Instead, the public comment session will be transcribed and given to the elected officials, according to CU spokeswoman Michele McKinney.

"I strongly oppose this with every fiber of my being," said Chloe Watkins, a CU-Boulder junior studying biology, at the hearing. "I just can't sleep at night."

Sources: Brouillete, Amy, "Acitivists Oppose Any Role for CU at Los Alamos Lab," Denver Post, 30 September 2005; Williams, Matt, "Los Alamos Speak Session," Colorado Daily, 29 September 2005.

Foundation Activities

FOUNDATION HOLDS ITS 22ND ANNUAL EVENING FOR PEACE

On October 29th, the Nuclear Age Peace Foundation held its 22nd Annual Evening for Peace in Santa Barbara, CA. This event serves to honor individuals who have made courageous contributions in the cause of peace. This year the Foundation presented its Distinguished Peace

Leadership Award to Dr. Daniel Ellsberg for his strong and courageous stances against war, militarism and nuclear weapons. He has played a pivotal role in promoting governmental accountability and transparency as it relates to US foreign policy. The Foundation also presented the Honorable Douglas Roche, O.C. with a Lifetime Achievement Award for his steadfast commitment as chair of the Middle Powers Initiative to a nuclear weapons-free world. Helen Thomas, the longtime Dean of the White House Press Corps, was on hand to interview our two honorees. Ellsberg and Roche provided compelling ideas on the continued threats posed by nuclear weapons and the policies that increase the likelihood of their further spread and possible use.

This year, the Foundation again had nearly 100 students from area high schools and colleges attend our Evening for Peace. A number of these students participated in a Peace Leadership Workshop earlier in the day at the Foundation, led by Michael Coffey, the Foundation's Director of Youth Programs.

FOUNDATION CO-HOSTS YOUTH CONFERENCE AT AMERICAN UNIVERSITY

On November 5th, the Foundation co-hosted a day-long conference at American University in Washington, DC entitled "The Young Global Leaders Summit: Think Outside the Bomb." Co-sponsored by Americans for Informed Democracy, over 200 college students from 15 national campuses participated in plenary sessions, panel discussions and workshops on issues ranging from nuclear weapons and global security to campus and community organizing. Joe Cirincione, Director for Non-Proliferation at the Carnegie Endowment for International Peace provided the keynote address. Carah Ong, Director of the Foundation's Washington DC office, and Michael Coffey, the Foundation's Director of Youth Programs, helped organize the conference and played a key role in facilitating workshops. Follow up interest was so strong that several more such conferences are now being planned on other campuses in several states.

NEW FOUNDATION BOOK: HOLD HOPE, WAGE PEACE

The Nuclear Age Peace Foundation is pleased to announce the publication of a new book entitled Hold Hope, Wage Peace, an inspiring collection of essays that will rouse you to take action for the creation of a more just and secure world. This compendium of inspiration and information by international peace leaders includes a foreword by eminent journalist Walter Cronkite and articles by Nuclear Age Peace Foundation President David Krieger, famed primatologist Jane Goodall, Rev. Theodore Hesburgh, Soka Gakkai International President Daisaku Ikeda, Nobel Prize Laureate Mairead Corrigan Maguire, Body Shop founder Anita Roddick, historian Howard Zinn, and many others!

There is a Zen saying that one chops wood and carries water before enlightenment; and after enlightenment one chops wood and carries water. In other words, the basics don't change with enlightenment. The thesis of this important book is that the basics for building a more decent world are holding hope and waging peace, and that these do not change.

In his foreword, Walter Cronkite writes, "Hopelessness translates into inaction; it translates into surrender to what is feared to be the inevitable. We must all be thinking about what can be done to assure a human future on our planet."

Don't miss out! Order your copy of Hold Hope, Wage Peace today for only \$15.95 plus \$4.00 shipping and handling. The book can also be purchased in bulk orders of 100 or more copies for a special rate.

Share the inspiration! Hold Hope, Wage Peace makes a great gift for friends, family and loved ones.

Book Details

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Order your copy online today at:

<http://www.wagingpeace.org/menu/store/books/hold-hope-wage-peace.htm>.

Resources

FROM THE ISLANDS TO THE OZARKS

From the Islands to the Ozarks is a radio program that details the nuclear legacy of the Marshall Islands. The first national broadcast occurred on 21 October 2005 on National Public Radio's "Living on Earth" program. A transcript of From the Islands to the Ozarks is available online at: <http://www.loe.org/shows/shows.htm?programID=05-P13-00042#feature5>. You can also download an MP3 of the program at: <http://stream.loe.org/audio/051021/051021marshall.mp3>.

SECURING US NUCLEAR MATERIALS: POOR PLANNING HAS COMPLICATED DOE'S PLUTONIUM CONSOLIDATION EFFORTS

On 7 October 2005 the Government Accountability Office released Securing US Nuclear Materials: Poor Planning Has Complicated DOE's Plutonium Consolidation Efforts. The report suggests a number of improvements in the US Department of Energy's plutonium disposal and storage efforts. The complete report is available as a PDF download from: <http://www.gao.gov/new.items/d06164t.pdf>.

ATOMIC PLATTERS: COLD WAR MUSIC FROM THE GOLDEN AGE OF HOMELAND SECURITY

Atomic Platters is the result of a years-in-the-making musical "Manhattan Project" that collects over 100 vintage Cold War songs and more than two dozen civil defense Public Service Announcements. More information about Atomic Platters is available at:

http://conelrad.com/media/atomicmusic/sh_boom.html

DU: HEALTH AND PUBLIC HEALTH ISSUES ARISING FROM THE USE OF DEPLETED URANIUM MUNITIONS

Physicians for Social Responsibility have published DU: Health and Public Health Issues Arising From the Use of Depleted Uranium Munitions, a report that explores the potential health effects from depleted uranium munitions used during combat on soldiers and civilians. The complete report is available as a PDF download from:

http://www.psr.org/documents/psr_doc_0/program_4/DU_Report.pdf.

SPACE LAW: CURRENT PROBLEMS AND PERSPECTIVES FOR FUTURE REGULATION

Space Law: Current Problems and Perspectives for Future Regulation is edited by Marietta Benkö and Kai-Uwe Schrogl. The book has 16 sections written by distinguished scholars and experienced practitioners in the legal, technical as well as in the political field. Until 30 November Space Law is available for €75. To order Space Law or for more information visit the publisher's website at:

<http://62.131.144.145/eleven/>

Quotable

"The current challenges to international peace and security, including those related to nuclear nonproliferation and nuclear arms control, cannot be wished away. It is urgent and indispensable that we continue to build a global security system that is equitable, inclusive and effective."

Mohamed ElBaradei, IAEA Director General, and 2005 Nobel Peace Prize Winner

Remarks made during his first speech at the United Nations after winning the prize
31 October 2005

"This is a message to all the people of the world: Do what you can to get rid of nuclear weapons...The people's power is formidable."

Ole Danbolt Mjoes, Nobel Prize Committee Chairman
Remarks made upon announcing Mohamed ElBaradei and the IAEA won the 2005 Nobel Peace Prize
7 October 2005

"I think that the Iranians have been pursuing a nuclear weapons program for up to 18 years. They have engaged in concealment and deception and they've engaged in threats before. The real issue is whether an international community is going to accept an Iran that violates its treaty commitments under the Non-Proliferation Treaty, that lies about its program and is determined to get nuclear weapons deliverable on ballistic missiles that it can then use to intimidate not only its own region but possibly to supply to terrorists."

John Bolton, US Ambassador to the United Nations
During an interview with the BBC
14 October 2005

"The move to research and develop new nuclear weapons is misbegotten and wrong-headed. I believe as more people learn about what the Administration plans that the opposition to the development of these weapons will grow stronger."

US Senator Diane Feinstein
Statement made in a press release following the announcement that funding for the Robust Nuclear Earth Penetrator, or "bunker buster," was slashed from the Fiscal Year 2006 budget.
26 October 2005

Editorial Team

Luke Brothers
David Krieger
Carah Ong
Will Parrish
Nick Roth

