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BULGARIA TRIES TO ABUSE KOZLUDOY 3 AND 4 CLOSURES

European Parliament dismisses call for "flexibility"

The European Parliament (EP) November 30 stopped attempts from Bulgarian and pro-nuclear politicians to create uncertainty about the final closure date of the Kozloduy reactors 3 and 4. In a 269-264 vote, the Parliament reiterated its call on Bulgaria to close the two blocks before Bulgaria's EU accession on December 31 at midnight.

(650.5767) WISE Czech Republic - Parliament rapporteur on Bulgaria, British MEP Geoffrey van Orden, tabled a text in Bulgaria's EU accession progress report in which he called for flexibility concerning Kozloduy 3 and 4's closing dates. A few days before the EP plenary threw out the text, the Foreign Commission had accepted it, which was extensively covered and celebrated in the Bulgarian press. Already in March of this year, van Orden tried to smuggle a similar text in his progress report. This text also was voted out by the plenary of the European Parliament.

When talks about EU accession started with Bulgaria in 1998, the country had to promise to close its four VVER 440/230 reactors in Kozloduy as they were considered too unsafe for upgrading. The EU allowed, however, a phase-out time provided that certain upgrades would be carried out. End 2002, the blocks 1 and 2 were taken from the grid, switched off and mothballed.

Irreversible closing of block 1 and 2

Many Bulgarian politicians and people from the nuclear energy sector, including consecutive directors of the Kozloduy nuclear power plant, did not like the closure of the reactors and sometimes secretly, sometimes very vocally even held hopes for a re-start of the blocks 1 and 2 as soon as Bulgaria would have entered the EU. Last summer, however, the European Commission heavily criticized Bulgaria for not making the closure of block 1 and 2 irreversible and Bulgaria had to promise steps to do so. A request by Greenpeace for information on concrete measures last September was refused and is currently awaiting court decision. On 7 December, the chairman of the Nuclear Regulatory Agency in Bulgaria amended the operation licenses of block 1 and 2 so that certain vital components can be removed from the reactor. It is not clear, however, whether this would constitute an irreversible closure.

MEPs as lobby

The Bulgarian media give the impression that there has been a years long debate about whether final closure of Kozloduy 3 and 4 should be postponed. Inspection visits of IAEA and WENRA (a non-governmental organization comprised of the Heads and senior staff members of Nuclear Regulatory Authorities of European countries) were said to have declared the reactors safe enough to operate for

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a longer time, even though the relative superficial inspections only gave conclusions about operability on that moment. Every visit or sentence from pro-nuclear MEPs like former Scottish Social Democrat MEP Tony Wynn in favor of Kozloduy found wide attention in the Bulgarian media. Voices from, among others, Green MEPs during their visits to Bulgaria were hardly covered, if at all. They argued that Kozloduy closure postponement had no chance because it would need a change in the Accession Treaty, an act that needs unanimous support from all present 25 EU Member States. Several countries would veto any prolongation of the lifetime of these dangerous reactors. The distorted media attention led to a ground-swell in public opinion believing that the European Parliament could and would keep Kozloduy open.

After Wynn left the Parliament after the last elections, his torch was taken over by the EPP-ED fraction (Christian Democrats, by far the largest political group in the EP) members Finnish MEP Eija-Riitta Korhola and Slovenian nuclear lobbyist Romana Jordan Cizelj, and the Socialist Edit Herczog from Hungary.

Panic in the Balkans

The last months saw a spreading panic in the entire Balkan region, allegedly because closure of Kozloduy 3 and 4 would lead to energy shortages. In order to prevent unrest in Bulgaria itself, Energy and Economy Minister Rumen Ovcharov reported that there would be no problem for Bulgaria, but that Bulgaria's electricity export clients Serbia, Macedonia, Montenegro, Albania and Greece might suffer. Macedonia's grid operator MEPSO picked up the argument, diverting attention from its own grid management problems.

In Bulgaria itself a heated debate ensued about whether the closure of Kozloduy 3 and 4 would lead to price increases. On 6 December, the head of the state energy regulator told that prices for households will remain unchanged until July.

Turkey seeking Bulgarian electricity imports

Turkey approached Bulgaria to buy electricity from 2007. It offer as much as 5,7 cent/kWh. It is as to date unclear whether Bulgaria is going to export to Turkey next year or not. If so, this might be a shift of export capacity from the Balkan countries to the East because of price reasons.

Fishing for money

Some observers state that the games around Kozloduy 3 and 4 are played in order to get support for the Belene NPP project, possibly in the form of a Euratom loan. Others point at the requests now made by the Bulgarian government for higher compensation for the "loss" of Kozloduy 3 and 4. Where others would argue that Bulgaria has received already a very lucrative bonus with the EU permission to run the outdated Kozloduy reactors for the last eight years while exposing its population and the rest of Europe to risk, Bulgarian authorities with the help of IAEA calculations argue that Kozloduy could have given Bulgaria still hundreds of millions Euro of income if allowed to continue running even further. They try to claim this from the EU.

It has to be noted that Bulgaria and its electricity clients had eight years to prepare for Kozloduy 3 and 4's closure. The fact that Bulgaria could export electricity over the last years was mainly because replacement capacity for Kozloduy 1 to 4 was timely developed. The games in the European Parliament and the panic on the last moment seems to be created with other aims in mind. One thing we probably can be sure of: each glitch in the grid in the coming months or even years will probably be blamed on Kozloduy's closure and not on failing grid management.

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About the long silence from our side.

The last issue before this one was send out on September 6 of this year. We truly apologize for this. We have been and are dealing with long-time illness of our editor so we also cannot exactly promise when the next issue will be send out. We hope to make it up a little bit with this Nuclear Monitor, 12 pages longer than usual.
We wish you all a peaceful X-mas and a happy new year; keep sending in your anti-nuclear news!

AREVA: OLKILUOTO-3 NOT "A BAG OF CHIPS"

STILL THE SAME OLD SONG: COST OVERRUNS AND DELAYS

French nuclear energy giant Areva will take a charge of 500 million euro this year for extra costs because work on the 1600MW Olkiluoto-3 reactor in Finland is 18 months behind schedule, Les Echos reported, without naming its source. The reactor was initially due to be operational in mid-2009. Construction began in August 2005.

(650.5768) WISE Amsterdam - Finnish energy company TVO announced early December that construction of the world's first third-generation nuclear reactor is now 18 months behind schedule. 'The difficulties met since the start of work are not surprising. It is not a bag of chips that we are constructing in Finland but a nuclear reactor, which, what's more, is the first of its kind,' according to an Areva spokesman Construction of the EPR (European pressurized water reactor) began in August 2005 and the reactor was initially due to be operational in mid-2009. 'Today's estimate is that the unit will be completed at the turn of 2010-2011,' the head of the project Martin Landtman said in a statement. "The initial calendar was perhaps too ambitious", the business daily cited an Areva spokesman as saying. "Despite the 18 month delay, construction of the Finnish EPR will not take any longer than usual nuclear sites. We tend to forget, but Chooz, the last reactor completed in France, by EDF, went into service four years later than envisaged," (well, then you should be able to take that in account by now, shouldn't you?). According to Nucleonics Week, industry sources said the contractual penalty for Areva is 0.2% per week of delay past the May 1, 2009 commercial operation target for the first 26 weeks, and 0.1% beyond that. The contract limits the penalty to 10% of the total contract value, or about Euro 300 million, these sources said.

A consortium comprising Areva and Siemens AG is building the 3.2 billion Euro reactor. Areva admitted in July that the problems at the Olkiluoto 3 site will have a major impact on the company's full year results. The company announced massive loss in their profits for the first half of 2006. Income from nuclear operations fell from 373 million Euros to 73 million Euros, due to the contract for the Finnish reactor
In June, only one year after the start of the construction, the project ran into delays of at least a year, equating to one-month delay for every month of construction. On top of that, the Finnish regulator admitted major problems in the quality control, raising safety concerns.

"The Finnish nuclear reactor was heralded as the start of a European nuclear 'renaissance' and has swiftly become the nightmare for the nuclear industry Greenpeace predicted," Jan Vande Putte of Greenpeace International. Said in July when the Areva publicised it's loss. "The reality is that the nuclear industry is in a deep crisis." "Nuclear power is not only highly dangerous, polluting and proliferating nuclear weapons," Vande Putte said, "but it is also incapable of delivering its promises to the energy market. It is, however, the champion in sucking up vast financial resources, which would be better used if invested in renewable energy and energy efficiency. The climate cannot afford such nuclear adventures any more."

To add to the problems, the European Commission (EC) late October launched a formal investigation to establish whether the French government's EUR570 million (US$725 million) loan guarantee financing TVO's Olkiluoto-3 reactor complies with EU rules on state aid. The loan agreement to TVO is for the purchase of equipment from Areva. Separate complaints were filed in late 2004 by Greenpeace and the European Renewable Energies Federation (EREF). Both organizations claim the loan guarantee unfairly subsidizes the project. TVO Finance Director Lauri Piekkari said the guarantee is a normal way of financing export projects and that such financing is covered by specific OECD regulations.

There is a lot to say about the claim of the nuclear industry ("Olkiluoto-3 has proven that nuclear is cheap even without government subsidies") but not that it is the truth. The tough competition between the manufacturers lowered the price of the whole project down.

Olkiluoto-3 is a crucial deal for its constructor, Framatome ANP. It is the first EPR design ever being built and a first nuclear project in a western country in a decade.
Therefore the company was ready to dump the price - after securing Euro 575 (other sources claim even 610 million) COFACE export credits from the French government.
The agreement to construct the reactor was made for a fixed price of 3,2 billion Euro. Even this exceeded the maximal cost estimations used during the political debate by 700 million Euro. Already in 2004 there were signs indicating that the total costs would be exceeded significantly. The constructor Framatome ANP took all the risk by agreeing on a fixed price contract, which means that there's no financial risk to TVO if the project fails. This enabled TVO to get a very cheap Euro 1,95 billion loan with only 2,6 percent interest rate. TVO is a consortium of forest industry and public energy companies. TVO produces electricity for its shareholders and doesn't sell any electricity directly. The shareholders will get electricity according to their shares for the price of the production - meaning that TVO itself as a company isn't aiming for making profit. This also means that the electricity is priced based on production costs only

Sources: AFX News Limited, 5 December 2006 / Nucleonics Week, 2 November 2006 / WNA News Briefing 06.43, 25-31 October 2006 / Greenpeace International Press release, 27 September 2006 / Greenpeace Briefing, 15 October 2006 / www.olkiluoto.info

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PFS: HARD WON VICTORY AGAINST ENVIRONMENTALLY RACIST NUKE WASTE DUMP TARGETED ON NATIVE LANDS

NIRS is overjoyed to announce that it has helped defeat the environmentally racist Private Fuel Storage (PFS) high-level radioactive waste dump targeted at the Skull Valley Goshute Indian Reservation in Utah.

(650.5769) NIRS - On September. 7, 2006 the U.S. Bureau of Land Management rejected transportation plans for shipping 44,000 tons of highly radioactive waste from commercial nuclear reactors across the country to PFS. The U.S. Bureau of Indian Affairs likewise rejected the lease agreement between the nuclear utility consortium comprising PFS and the pro-dump, disputed Skull Valley Goshute tribal chairman Leon Bear.

Although PFS may appeal these rulings, this dump has very likely been defeated, once and for all, after a bitter decade-long struggle. This tremendous environmental justice victory also sets an important precedent against the nuclear establishment's 20 year long effort to dump radioactive wastes on scores of Indian reservations across the country, and casts further doubt on the proposed national burial site for high-level radioactive wastes targeted at sacred Western Shoshone land at Yucca Mountain, Nevada.

NIRS wishes to extend its heartfelt congratulations and thanks to all the organizations and individuals who contributed to this tremendous environmental justice victory. PFS first began targeting Skull Valley in 1996. And for many years before that, the "Nuclear Waste Negotiator" from the U.S. Department of Energy - with cash in hand - tried wooing the Skull Valley Goshute tribal council into "temporarily hosting" America's irradiated nuclear fuel.

The greatest commendations, of course, go to Margene Bullcreek and her organization Ohngo Gaudadeh Devia Awareness (OGDA), Sammy Blackbear, the Bullcreek and Blackbear families, Lena Knight, Daniel Moon, and other Skull Valley Goshutes who have suffered tremendous sacrifices and painful punishments for many long years, for their tireless opposition to the proposed dump. Through it all, they have persevered and now triumphed. Their victory not only protects their own community and its future generations, but countless millions who live along the routes through dozens of states that were targeted for transporting the atomic wastes to Utah.

Now is no time to simply forget about the Skull Valley Goshute community. The State of Utah, the County of Tooele, the City of Salt Lake, and even the federal agencies that for so many years have been complicit in targeting this community for an atomic waste dump must now help provide resources for alternative, healthy economic development. All those communities across the country spared "Mobile Chernobyls" should also help out. As has been the case for many long years, non-profit groups such as OGDA, Indigenous Environmental Network, the Seventh Generation Fund, HEAL Utah, and the Shundahai Network will continue to advocate and organize for healthy economic development at the Skull Valley Goshute Reservation. Especially meaningful is Honor the Earth's proposal to install solar power panels on the reservation. This effort deserves the fullest support.

Unfortunately, PFS has caused many deep wounds in the Skull Valley Goshute community that will likely take a very long time to heal. Although pro-dump chairman Leon Bear was recently unseated in tribal elections, and anti-dump tribal members Marlinda Moon and Lena Knight were elected vice-chairwoman and secretary, respectively, the election is being contested, and non-Indian, pro-dump lawyers (paid by tribal funds) who have worked with Leon Bear for years are still pushing to revive the proposal. Dump opponents must remain vigilant to defend this victory.

PFS proceeded further than any such proposed dump ever had before, even scandalously receiving a license to operate from the U.S. Nuclear Regulatory Commission earlier this year. But numerous tribes had fended off similar threats in the past two decades. The five Native Nations of the Colorado River (the Quechan, Chemehuevi, Fort Mojave, Colorado River, and Cocopah Tribes) successfully fought off a so-called "low" level radioactive waste dump targeted at their sacred Ward Valley in southern California, a struggle that lasted throughout the 1990s and was only won within recent years. Rufina Marie Laws with Humans Against Nuclear DumpS (HANDS), and others at the Mescalero Apache Reservation in New Mexico, first fended off the Nuclear Waste Negotiator, and then PFS itself, before PFS set its sites on Skull Valley. Grace Thorpe, founder of the National Environmental Coalition of Native Americans, not only stopped the high-level radioactive waste dump targeted at her Sauk and Fox Reservation in Oklahoma; she also then hit the road, and helped other Reservations organize against similar threats. Grace even helped abolish the Office of the Nuclear Waste Negotiator once and for all, in 1994. Western Shoshone spiritual leader Corbin Harney and his Shundahai Network, as well as the Western Shoshone National Council and the Western Shoshone Defense Project, have for decades not only opposed dumping radioactive wastes at their sacred Yucca Mountain, but have also resisted nuclear weapons testing at the adjacent Nevada Test Site. Joe Campbell of the Prairie Island Mdewakanton Dakota Tribe has devoted decades of his life to warning and protecting his community against the threats posed by the twin reactor nuclear plant and its stored wastes on the Mississippi River flood plain, just hundreds of yards from the tribal day care center.

Winona LaDuke at Honor the Earth and Tom Goldtooth at Indigenous Environmental Network, and their stellar staffs, deserve tremendous thanks for the decades of leadership they have provided in this fight to defend Indigenous communities and Mother Earth against the deadly risks of radioactive wastes.

A Washington, D.C. lobby day organized by NIRS board of directors member Susan Alzner in July 2005 - featuring such artists as Ani DiFranco, her band and entire road crew; the Indigo Girls, representing Honor the Earth; NIRS core group members Joan Macintosh and James Cromwell; and U.S. Congressman and presidential candidate Dennis Kucinich - put the PFS issue on the radar screens of congressional offices as well as the Dept. of the Interior. Public Citizen used the Freedom of Information Act to uncover the fact that BIA had no documentation whatsoever justifying its original rubberstamp approval of the dump targeted at Skull Valley. U.S. Public Interest Research Group helped secure and lead the dozens of meetings on Capitol Hill and with federal agencies that made this lobby day such a success.

NIRS core group member Anne Sward Hansen attended an April 2005 NIRS press conference at the National Press Club in Washington, just one example of her many active years of opposition against PFS.

Additional Indigenous and non-Native allies -- too numerous to list - also deserve thanks and congratulations for their tireless defense of Native lands, which has defeated dozens of proposed atomic waste dumps aimed at Indian lands in the past.

It is right and proper to celebrate the defeat of PFS. But the broader fight against radioactive racism is far from over. Sacred Western Shoshone Indian land at Yucca Mountain, Nevada is still being targeted for the national permanent dumpsite for high-level radioactive waste, despite the Treaty of Ruby Valley of 1863, and despite the site's seismic, volcanic, and hydrological hazards. The U.S. Department of Energy is now targeting the Walker River Paiute in western Nevada for a rail route to ship 77,000 tons of high-level radioactive waste from all over the country to Yucca Mountain. Uranium mining companies, with NRC complicity, are attempting to circumvent a Navajo ban on uranium mining, milling, and processing on tribal territory. In its bid to sell the reactor to atomic giant Entergy, nuclear utility Consumers Energy is pressing to extend by 20 years the operations at the already 40 year old, dangerously deteriorated Palisades nuclear plant in the predominantly African American town of Covert, Michigan; NRC itself admits the reactor site almost certainly contains Native American archaeological and perhaps even burial sites that remain unprotected. As part of its nuclear sale to Entergy, Consumers Energy seems to be seeking to off load onto state taxpayers its liability for the radioactive contamination of soil, groundwater, and lake sediments it has caused, as well as for the high-level radioactive wastes still stored at the site of its decommissioned Big Rock nuclear power plant; the land and Lake Michigan shoreline there are sacred to the Odawa Indians. And nuclear giant Entergy wants to build a new reactor in the impoverished, predominantly African American County of Claiborne, Mississippi. The list goes on and on - the vigilance of atomic watchdogs must continue too, to counter this outrageous radioactive racism.

NIRS has been honored and privileged to work with all of those listed above, to be a part of these many struggles against radioactive racism, and for environmental justice.

Source: Prepared by Kevin Kamps, Nuclear Waste Specialist, NIRS, Dec. 12, 2006. For information on PFS and the Skull Valley Goshutes, see www.nirs.org/radwaste/scullvalley/skullvalley.htm

Contact: Kevin Kamps at NIRS

USA: Victory against Plutonium State Park at Big Rock (for now, at least)!

On December 1, the Michigan Department of Natural Resources (MI DNR) withdrew its application to the state's Natural Resources Trust Fund Board for a first instalment of $3 million of funding for a proposed state park at the Big Rock nuclear power plant site in northern Michigan. NIRS and two dozen grassroots groups in Michigan expressed strong opposition to the state park proposal, given the documented, lingering radioactive contamination that - despite the physical dismantlement of most structures at the facility -- still haunts the land's soil and groundwater, as well as the yet-to-be determined levels of radioactive contamination in the sediments of Lake Michigan and the local ecosystem's plants and wildlife.

The coalition also cited the 8 concrete and steel silos of high-level radioactive waste that will remain on-site till at least 2020, as well as the question of potentially massive legal liability that could be transferred from the company that generated the radioactive poisons onto the backs of state taxpayers once the state established a park there.

However, despite the risks, MI DNR has stated publicly that it will re-submit its application for Big Rock state park funding next year. MI DNR has also applied to the federal government for millions of dollars in funding, to put toward the nearly US$20 million sale price that Consumers Energy is asking for its radioactively contaminated property and high-level radioactive waste storage site. Another fear is that if a state park is not built at Big Rock, then private developers will swoop in to build wall to wall condominiums.

So the fight continues to protect unsuspecting visitors or residents at the Big Rock site from harmful exposure to residual radioactivity, as well as the safety and security risks of the high-level radioactive wastes that will be stored there indefinitely into the future.

Kevin Kamps, NIRS, 13 December 2006

2006 NUCLEAR-FREE FUTURE RESISTANCE AWARD: SUN XIAODI

Since 1998 the Nuclear-Free Future Award, the "world's most prestigious anti-nuclear prize", has annually honoured the visionaries and architects of a nuclear-free world. The Awards were presented on December 1, 2006, in Window Rock, Arizona USA, during the Indigenous World Uranium Summit. Among the 2006 winners of the Awards were: Gordon Edwards (Canada), Ed Grothus (USA) and Phil Harrison (Navajo Nation). The special Award for Resistance went to Sun Xiaodi, China, for his moral courage to petition for an end to the toxic mismanagement corrupting Chinese uranium mining and milling.

(650.5770) Nuclear Free Future Award - The Tibetan Autonomous Prefecture in China's Gansu Province, once a region of green fields and pristine waters, its woodlands thriving with wildlife, is rich with uranium reserves. One of the largest uranium mining and milling installations to operate there was Project 792. Opened in 1967, Project 792, run by the military, annually milled between 140 and 180 tons of uranium-bearing rock until it was officially shut down in 2002 as bankrupt owing to 'ore exhaustion and obsolete equipment.' Secretly rising from its radioactive ashes was a private mine operated by Longjiang Nuclear Ltd. - its shareholders a brotherhood of politicians and members of the nuclear ministry.

Today, large sweeps of Gansu Province - dotted with sacred sites - appear to have succumbed to an overdose of chemotherapy. The Chinese have taken no preventative measures to protect local human and animal life from uranium contamination. Tibetan medical workers report that an assortment of radioactivity-related cancers and immune system diseases account for nearly half of the deaths in the region - a statistic that goes unrecorded because patient histories are routinely manipulated in order to safeguard 'state secrets.'

Tensin Tsultrim, spokesman of the Central Tibetan Administration exiled in India, explains that, "Tibetans from the region complain about their helplessness to stop the uranium mining". He adds that, "Tibetans have no say on such projects, since natural resources are the property of the State and protests relating to environmental issues by Tibetans have led to persecution".

One man who has constantly spoken out despite state repression is Sun Xiaodi, a former Project 792 worker. Since 1988 this whistleblower has repeatedly traveled to Beijing to petition the government to end the corruption that saturates China's nuclear industry. In answer, public officials stripped Sun Xiaodi of his job and subjected him, his wife and daughter to a host of indignities. But Sun continued his petitioning.

Last year on April 28th, Sun met with foreign journalists and told them about the frequent discharges of radioactive waste into Gansu waterways. He also told them about the Tibetan hitchhikers who climb up on trucks transporting uranium ore, happy to get a ride. He also told them about the contaminated machinery and equipment from Project 792 that had not been - as proscribed by state regulation - encased in lead, covered in concrete to a thickness of fifty centimeters, and then buried two to three meters beneath the earth, but merely hosed down and sold to naïve buyers from Gansu, Inner Mongolia, Xinjiang, Zhejiang, Hunan and Hubei. "These officials have blood on their hands", Sun said.

The next day plainclothes police officers bundled Sun into an unmarked car, and 'disappeared' him. Sun was not heard from for months. Mounting international pressure finally forced his release from Lanzhou Prison on December 27, 2005. On March 20th, under the condition that Sun not leave his home village, the state security officer posted outside his house was finally removed.

Days later Sun was back in Beijing, petitioning. In a radio interview conducted at the end of March or beginning of April, Sun spoke of the bribes nuclear industry officials had taken, pocketing for themselves some 12.5 million dollars allocated by the central government to relocate mine workers. Asked whether uranium ore is yet mined and milled at the Project 792 site, and to whom it is sold, Sun Xiaodi replied: "I will tell you about the bankruptcy of the 792 Uranium Mine. All of the written reports are false. They simply changed a military enterprise into a civilian enterprise, and continued with large-scale mining. They are still mining the uranium on a large scale.... Who is their trading partner? Who do they sell the uranium to? ...Was it used to promote peace or violence?" These were all questions Sun Xiaodi could not answer.

Sun was detained again in April 2006. He was released soon afterward, but remains under constant police surveillance, and is now forbidden even to talk on the telephone, much less leave China to attend an award ceremony. Sun sent a short recorded message to the ceremony, in which he says: "Breaking through fear to fight for a nuclear-free environment requires a person to take a path full of hardship, bloodshed and tears, which could end up in either life or death. However, I firmly believe that if all people who are peace-loving and concerned with human destiny and upholding justice can come together and take action as soon as possible, a nuclear-free tomorrow can become a reality."

Source: Nuclear-Free future Award at nuclear www.free.com and website of Human Rights in China, www.hric.org

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URANIUM MINING ISSUES REVIEW 2006

During the course of the year 2006, the uranium spot market price continually climbed by 81% from 36.25 to 65.50 US$/lb U3O8 (according to UxC as of Dec. 11), or by 78% from 36.50 to 65.00 US$/lb U3O8 (according to TradeTech as of Dec. 8). The price is now 9 times its record low of 7 US$/lb U3O8 of 2000. In June, it nominally topped the 1978 all-time high of 43.40 US$/lb U3O8. (exchange rate as of Dec. 12: US$1=Euro 0.75)
The world uranium production reached 41,595 t U in 2005, a 3% increase over 2004. Production from mines thus supplied 62% of the 66,840 t U reactor-related demand in 2005.

(650.5771) Peter Diehl - The price rally was driven by an anticipated expiration of secondary supplies (in particular downblended nuclear weapons uranium), which are currently filling the supply gap, and by the plans for a major expansion of nuclear power generation in several countries, such as China, India, and Russia. An additional kick for the uranium price came from an incident at the Cigar Lake large-scale high-grade deposit in Saskatchewan, Canada, which is currently being developed for exploitation: the complete underground mine was flooded after a sudden water inflow in October, delaying the start-up of production for at least a year.
By an odd coincidence, uranium production suffered drawbacks at several existing mines, for various unrelated technical issues.

In response to the anticipated supply gap, the search for new uranium deposits was intensified world-wide and also reached various parts of Europe, now. The arrival of the uranium exploration companies was in some cases welcomed for the anticipated economic boost, but in many cases, opposition grew nearly instantly as soon as the news reached the concerned areas.
The development of new mines was forced at several known deposits. In the U.S., companies even announced plans to construct two new uranium mills, although several mothballed mills still exist. In Australia, the federal government is currently undertaking strong efforts to remove all impediments to the country's uranium industry, while uranium mining bans are in force in several states, still.

In addition, countries hosting insufficient uranium deposits to meet their demand, including existing large consumers, such as Russia and Japan, or potential large consumers, such as China and India, intensified efforts to assure uranium procurement from abroad. These efforts included the resolution of political hurdles impeding uranium deliveries, conclusion of supply contracts, and investment into uranium deposits and mining and exploration companies.
The number of uranium mining and exploration companies listed on the WISE Uranium Project website increased by 60% from 361 to 570 during the course of the year, but there could also be observed first signs of some consolidation taking place, since several mergers of companies were announced.

While the frenzy around new uranium mines was on the increase, business continued as usual at the sites undergoing decommissioning: cleanup of abandoned legacy mine sites continued at an unbearably low speed (and this way will take centuries to complete); and, at most U.S. sites being reclaimed by their prior operators, authorities had to approve relaxed site standards, since the reclamation goals had not been met.
Most disturbing was the case of Western Nuclear Inc.'s Split Rock uranium mill tailings site in Wyoming, where the U.S. Nuclear Regulatory Commission (NRC) permitted the halt of groundwater treatment, with the foreseeable result of existing drinking water wells becoming unusable in the future. If this sets a precedent, uranium mining companies will have to worry about absolutely nothing any more.

New uranium mining projects
In Nunavut, Canada, the Inuit organisation Nunavut Tunngavik Inc. reversed its ban on uranium mining on Inuit-owned land, paving the way for Areva (formerly Cogéma) to start uranium mining at Baker Lake.
The Lutselk'e Dene First Nation in the Northwest Territories, however, remains opposed to uranium mining.

In British Columbia, 300 people protested in July against the proposed uranium exploration at International Ranger Corporation's Foghorn property.

In Saskatchewan, the development of Cameco's Cigar Lake large-scale high-grade uranium deposit suffered two serious setbacks: In April, a water inflow 392 metres below the surface stopped the construction of a ventilation shaft; and, on October 23, the complete underground mine was flooded from water inflow following a rock fall. Mine construction is expected to be delayed by at least a year.
Areva committed to proceed with the development of the Midwest uranium mine project and started the preparation of an Environmental Assessment.
The Fond Du Lac Denesuline First Nation optioned reserve lands to CanAlaska Uranium Ltd for uranium exploration.

In Québec, 70 people gathered at Mont-Laurier in June to protest against uranium exploration in the area.

In Wyoming, USA, Cogéma/Areva plans to restart its Christensen Ranch in-situ leach uranium mine; a final decision is expected by end 2006. The mine was shut down in 2000.
High Plains Uranium, Inc., is planning a uranium in-situ leach mine at its Allemand-Ross property, and Uranerz Energy Corporation is planning a uranium in-situ leach mine at its Nichols Ranch project.
Cameco's subsidiary Power Resources, Inc., applied to include the planned Reynolds Ranch uranium in-situ leach project as a satellite facility to the existing Smith Ranch/Highland in-situ leach mine; in a draft Environmental Assessment, the U.S. Nuclear Regulatory Commission (NRC) concluded that the Reynolds Ranch project would not significantly affect the quality of the human environment.

Power Resources, Inc., also filed an application for commercial operation of its North Butte uranium in-situ leach project.

In Utah, International Uranium Corp. reopened its Pandora uranium/vanadium mine.

In Colorado, Energy Fuels Resources Corp. reopened the Torbyn and Sapphire uranium mines and plans to build a new uranium mill in Paradox Valley.

In Arizona, Concentric Energy Corp. plans the development of the Anderson uranium mine.

In New Mexico, Strathmore Minerals Corp. initiated the mining permit application process for its Roca Honda deposit and purchased land for a potential uranium mill site in Ambrosia Lake.

In Texas, Uranium Energy Corp initiated the permitting of an in-situ leach uranium mine at its Goliad Project, where Goliad County officials had passed a resolution against uranium mining.
The restart of Uranium Resources Inc.'s Kingsville Dome and Rosita in-situ leach mines has been delayed due to "weather problems and a shortage of available drill rigs and logging trucks".
Energy Metals Corporation initiated permitting for a new uranium in-situ leach mine at La Palangana.

In Mendoza, Argentina, protests and demonstrations were held at several occasions against the reopening of the Sierra Pintada uranium mine prior to cleanup of the environmental liabilities left from former operation.
Moreover, property owners took legal action against uranium exploration in the touristic zone of Cañón del Diamante.

Uranium exploration by Canadian Mawson Resources Ltd. in Jämtland, Sweden, drew strong opposition from residents, and several communities appealed the exploration permit.

In Finland, some 200 people gathered in Helsinki in May to protest the uranium exploration planned by Areva in southern Finland; Areva already received permits for uranium exploration in Northern Karelia in eastern Finland.

In Bergamo, Italy, opposition formed against the development of the Novazza uranium deposit proposed by Australian Metex Resources Ltd.

In Slovakia, Canadian Tournigan Gold Corporation received a positive economic study for the development of its Jahodná uranium deposit, while the City council of nearby Košice adopted a resolution against uranium mining and 16,000 signatures were collected for a petition against uranium mining.

In Hungary, Australian Whildhorse Energy Ltd. plans uranium exploration at Pécs and several other locations.

Bulgaria considers re-opening of its uranium mines; Russia, as well as Canadian Cameco, showed interest in mining uranium there.

Ukraine announced plans to double uranium production by 2010; a five-fold increase is envisaged by 2020.

In Malawi, the Draft Environmental Impact Assessment for Australian Paladin Resources Ltd's Kayelekera Uranium Project was submitted for public comment. Several local NGOs oppose the uranium mining project.

In Namibia, production at Paladin Resources Ltd's Langer Heinrich uranium mine is to commence in December.
Uramin Inc. started a Bankable Feasibility Study on its Trekkopje uranium mine project.
Canadian Forsys Metals Corp. initiated a Pre-Feasibility Study for its Valencia uranium mine project.
The Namibian government announced plans to introduce legislation that would demand mining companies to pay into - so far not required - decommissioning funds.

In Zambia, Australian Omegacorp Ltd. has applied for a mining license for its Kariba uranium mine project. The Zambian government, however, has announced the development of a policy prior to issuing licenses for the mining of uranium.
Australian Equinox Minerals Ltd. is re-evaluating the potential for a significant uranium by-product from its Lumwana copper mine project.

In South Africa, SXR Uranium One Inc. was granted a mining right for its Dominion uranium project. A preliminary feasibility study confirmed the viability of the Ezulwini gold/uranium mine project, owned by a subsidiary of Simmer and Jack Mines Ltd.
First Uranium, another subsidiary of Simmer and Jack Mines Ltd, considers processing of the Buffelsfontein tailings for residual uranium.
AngloGold Ashanti plans to increase uranium output from its new Moab Khotsong mine and from processing of tailings.

In Russia, the Khiagda uranium in-situ leach project in Buryatia obtained approval for capacity build-up to 200 t/a.
The Russian existing uranium mines and uranium stockholdings are nearing depletion. Within 10 years, Russia might be facing a serious uranium supply crisis. Russia is therefore planning to increase uranium production sixfold by 2020, based on a doubled production (apparently from low-grade material) at existing uranium mines and start of exploration at a number of fields in Siberia and Buryatia. For lack of alternatives, Russia now considers mining of uneconomic but large deposits in the Aldan district of South Yakutia - so far not even classified as resources. Japanese Mitsui & Co., Ltd. is to participate in the development of this mine.

In Armenia, the Greens Union of Armenia expressed concern over the environmental impacts of US-based Global Gold Corporation's proposed uranium mining at Nor Getik.

In Kazakhstan, commercial production started at the Zarechnoye, Muyunkum, and East Mynkuduk in-situ leach uranium mines.
The Akdala in-situ leach uranium mine was expected to reach full production in 2006.

In Saudi Arabia, Tertiary Minerals PLC considers by-product recovery of uranium from its Ghurayyah tantalum-niobium deposit.

In Meghalaya, India, the debate on the proposed Domiasiat uranium mine continued; protesters formed blockades to prevent the road construction work required for the mine.
In Jharkhand, the East Singhbhum district administration served a showcause notice on the Uranium Corporation of India Limited (UCIL) for unauthorised mining in Fuljhari, Turamdih and two other new mines in Keuradungrui. UCIL is accused of illegally having started mining, while the applications for mining were still pending with the State Government.
In Andhra Pradesh, protests were held at the public hearing on the Pulivendula uranium mine project in Kadapa. A

protest walk was held against the Lambapur-Peddagattu uranium mine project in Nalgonda; it was accorded environmental clearance in April.

In Australia's Northern Territory, Areva NC said it had no plans to mine the Koongarra deposit in the near future because it is concentrating on new projects in Canada and Kazakhstan; the project is opposed by the Traditional Owners. Pressure on Traditional Owners increased, however, to permit ERA's Jabiluka mine.

In Queensland, Laramide Resources Ltd commissioned a scoping study of its Westmoreland uranium deposit, although the state bans all uranium mining.

In South Australia, SXR Uranium One Inc. received a license for its Honeymoon in-situ leach uranium project.
After protests from residents, South Australian Premier Mike Rann ruled out uranium mining near the Myponga Reservoir on the Fleurieu Peninsula, where exploration company Marathon Resources wanted to conduct soil tests. The tests will rather be performed by state authorities, now.

Issues at operating uranium mines
In Utah, USA, the Division of Radiation Control authorized alternate feed processing of material from FMRI's Muskogee Facility at IUC's White Mesa uranium mill.

In Texas, the regulator approved the extension of the Kingsville Dome ISL uranium mine.

In Brazil, a parliamentary commission found serious deficiencies with control of Industrias Nucleares do Brasil's Lagoa Real/Caetité uranium mine in Bahia: the mine had no regular operating license, and it had failed to report several incidents, among others.

Russia plans the extension of the Krasnokamensk mine and the Khiagda in-situ leach project. In November, Russia consolidated its uranium production assets in a new company.

In Kazakhstan, Areva invests in a production increase at the Muyunkum in-situ leach mine.

Kyrgyzstan failed to find a bidder for a majority stake in the Kara Balta uranium mill.

In Australia's Northern Territory, ERA plans to mill more stockpiled low-grade ore, extending the operational life of the Ranger mill by six years.
A study found an almost doubled cancer rate among Aborigines near the Ranger mine, it is unclear, however, whether this is caused by the uranium mine.

In South Australia, Heathgate seeks a mining lease extension for its Beverley uranium in-situ leach mine. At BHP Billiton's Olympic Dam copper/uranium mine, audit reviews called for improvements of the tailings management at the site, in view of the proposed four-fold capacity expansion.

Setbacks at operating uranium mines
In Saskatchewan, Canada, Denison Mines Ltd. reported a serious production setback at the McClean Lake mine, in which it holds a minority interest (operator is Cogéma/Areva): "The McClean Lake Joint Venture produced 455,000 pounds of uranium [175 t U] during the three months ended September 30, 2006 compared with 1,532,000 pounds [589 t U] during the same period in 2005. [...] Production for the first nine months of the year has been well below our expectations due to lower grade ore feed, the absence of higher grade ore from the blind boring/jet boring operations, reduced throughput caused by variances in the arsenic concentration of the ore feed that resulted in elevated temperatures in the leach circuit and a shortage of reagents due to road closures caused by forest fires. [...] Average mill feed grade for the third quarter 2006 was 0.58% U3O8 compared to 1.73% U3O8 for the comparable 2005 period."

In Colorado, USA, Cotter Corp.'s Cañon City uranium mill remained closed. The owners are investigating possibilities for process improvements, and they are waiting for a further increase of the price of uranium, for the mill to become viable again.

In Texas, production from Uranium Resources Inc's Vasquez in-situ leach uranium mine was below expectations: "Production costs for the third quarter of 2006 were $56.92 per pound compared with $23.57 per pound in the prior year's third quarter. The higher production costs were primarily due to higher capital and operating costs compared with the prior year and also due to the change in the estimated recovery factor for the Vasquez project from 70% to 50%."

In Uzbekistan, a slight production shortfall is expected at the Navoi processing plant: "According to forecasts, uranium mining this year could fall by approximately 40 tonnes due to technical problems of an industrial nature and insufficient funding".

In Australia, ERA's Ranger mine experienced a serious production setback:
In the second quarter, "Drummed production for the quarter was 596 tonnes uranium oxide [505 t U] (2005: 1,250 tonnes uranium oxide [1060 t U]). This was lower than the corresponding period last year due to wet weather associated with cyclone Monica and unusually high rainfall throughout the wet season that prevented access to high grade ore. Production was further impacted by a reduction in the volume of ore treated due to difficulties experienced in bringing the acid plant back to full production after a planned maintenance shutdown."
The problems continued in the third quarter: "Mill head grade was 30 per cent lower than the corresponding quarter in 2005 although it was 5 per cent higher than that processed in Q2. [...] The lower mill head grade resulted in drummed production that was 31 per cent lower than the corresponding quarter in 2005 but 85 per cent higher than second quarter production. As a result of the operational difficulties experienced in the first half of the year and the impacts of the high water level, production for 2006 is forecast to be significantly lower than in 2005."

Abandoned mines
In South Dakota, USA, a new study showed abandoned uranium mines in the Cave Hills area are contaminating nearby waters, but the study did not determine if that has caused health problems downstream.

In Utah, the state began reclamation of some unsecured uranium mines in the Labyrinth Canyon area.

In Kazakhstan, the reclamation of the large Koshkar-Ata uranium mill tailings at Aktau has once again been delayed; it now is scheduled to begin in 2007. Just US$ 1 million have been set aside for this purpose from the 2007 state budget; the total reclamation cost is now quoted as US$ 8.4 million, while earlier estimates had assumed costs of US$ 76 million.

In Tajikistan, planning for management of abandoned uranium mill tailings began.

In Kyrgyzstan, the reclamation of the Kadzhi-Say uranium mill tailings was completed with foreign aid. OSCE (Organization for Security and Cooperation in Europe) and the Kyrgyz Government moreover committed to assess and reduce the threat posed by abandoned uranium dumps in the Minkush area.
For the former uranium mining and milling area of Mailuu Suu, a radiation exposure assessment was performed, finding radiation exposures for residents of more than 4 mSv/a; much higher radiation doses would result from a supposed dam failure.
Around the decommissioned Orlovka uranium mill tailings dump in the Chui region, residents were reported to be digging for mono-silicon.

In Pakistan, concern was raised over the hazards from the radioactive waste left at the former Baghalchur uranium mine near Dera Ghazi Khan; however, no such evidence was found there.

In Australia, the clean-up of abandoned uranium mine sites in the South Alligator River area in Kakadu National Park was included in the federal budget.

Decommissioning issues
In Washington State, USA, the U.S. Environmental Protection Agency (EPA) issued a decision on the final cleanup plan for the Midnite uranium mine.

In Wyoming, after seven years of discussion, the U.S. NRC approved relaxed groundwater standards at Western Nuclear Inc.'s Split Rock uranium mill tailings site, allowing for continued contamination of clean groundwater by the progressing contaminant plume, and for drinking water wells becoming unsuitable for domestic use in the future.
The U.S. Nuclear Regulatory Commission (NRC) moreover approved:
- the reclamation performed on the Lucky Mc uranium mill tailings,
- a third five-year postponement of initiation of decommissioning of the mothballed Sweetwater uranium mill,
- a relaxed Radium-226 standard for topsoil covers and relaxed groundwater standards for lead-210 at Umetco's Gas Hills uranium mill site,
- alternate groundwater protection standards at the ExxonMobil Highland uranium mill tailings reclamation project, and
- the groundwater restoration performed at the Irigaray in-situ leach site, although primary standards are not met.

In Utah, the U.S. Department of Energy (DOE) released a Draft Remedial Action Plan for the relocation of the Atlas Moab uranium mill tailings to the Crescent Junction disposal site. Flooding spurred new concern over the existing situation of these tailings.
At the former Monticello uranium mill site, a study found no increased cancer incidence among residents; data gaps are to be filled now to allow for the analysis of cancer incidence.

In New Mexico, the U.S. EPA settled with United Nuclear to investigate contamination at the former Church Rock uranium mine and mill site. The U.S. NRC granted United Nuclear a relaxed radium groundwater standard at the same site.
The U.S. NRC approved Rio Algom's Soil Decommissioning Plan and groundwater alternate concentration limits for the Ambrosia Lake uranium mill tailings site.
The New Mexico Environment Department requested from Sohio Western Mining Company an investigation into groundwater contamination observed at the former JJ Number 1/L-Bar Mine.
The U.S. NRC approved relaxed groundwater site standards at Homestake's Grants uranium mill tailings site, although elevated contaminant concentrations were found in residential wells near the site.

In Texas, an analysis showed that permission of relaxed groundwater restoration standards is quite normal with the shutdown of uranium in situ leach facilities: An examination of 32 permits from closed South Texas in-situ leach mines showed that in each case, companies were permitted to leave behind minerals such as uranium, molybdenum and selenium at higher levels in groundwater than were listed in the original permit. In some cases, companies were able to meet the restoration target for one mineral but reported 10- and 20-fold increases in others. Older mines tended to require more drastic permit amendments than mines started later.

In Ohio, the shipment of the Congo high grade uranium tailings (aka Fernald Silo wastes) to an interim disposal site in Texas was completed. The Institute for Energy and Environmental Research (IEER) issued a critical assessment of the management of these wastes.

In Germany, reclamation of the Wismut legacy continued: the relocation of the landmark Paitzdorf waste rock piles into a former open pit was completed, as well as the flooding of the southern part of the former Ronneburg uranium underground mine and the intermediate cover on Basin B of the Culmitzsch uranium mill tailings deposit. A study by Öko-Institut confirmed that there no longer exists a radiation hazard on that part of the former Ronneburg uranium mining area where the 2007 federal garden festival will take place.

In the Democratic Republic of the Congo, a team of experts monitoring a U.N. arms embargo once again found ample signs of "artisan mining" by small groups of private individuals at the former Shinkolobwe uranium mine, although the Ministry of Mines and the National Intelligence Agency assured that the mine is secured and that no artisan mining is taking place. While the miners are interested in cobalt, uranium could also be extracted from the ore.

Miners' and Residents' Health - Science issues
In a research project to study the non-radiological toxic effects of certain radionuclides, France's Institute of Radiological Protection and Nuclear Safety has investigated the effects of chronic ingestion uptakes of low doses of uranium to various biota and rats. The study showed some unexpected biological effects. It remains unclear, however, whether these effects can cause any health effects, and whether they can be extrapolated to humans.

Another research group studied the toxicity of continuous ingestion of uranium with drinking water in humans. No indicators of kidney toxicity were found, while uranium is toxic to kidneys in experimental settings.

A retrospective study among 59,001 former Wismut miners confirmed the excess relative risk estimate from radon progeny exposure known from previous studies among various other miner cohorts. However, the excess relative risk per WLM showed a maximum only 15-24 years after exposure and showed only a modest decline with time since exposure. "The results would indicate the need to re-estimate the effects of risk modifying factors in current risk models."

The leukaemia risk of former uranium miners in East Germany was investigated in a case-control study. The results suggest that an elevated risk for leukaemia is restricted to employees with a very long occupational career in underground

uranium mining or uranium processing. No association was found between exposure to short-lived radon progeny and leukaemia risk.

Uranium trade and foreign investment issues
China and India both own very small and low grade uranium deposits only, but both are planning to expand nuclear power production at a large scale.

Uranium exports to China
In April, the Australian government approved deliveries of Australian uranium to China. There exist no delivery contracts yet, however, since the Australian uranium suppliers don't have free capacities in the short term. So far, Australia had refused to permit uranium deliveries to China, since civilian and military use of nuclear facilities are not separated in China, and China rejects monitoring of its facilities by the International Atomic Energy Agency (IAEA). In December, an Australian parliamentary committee approved the export of uranium to China.
In September, Sinosteel Corp. became the first Chinese company to announce an investment into an uranium exploration project in Australia. China is also seeking approval for uranium deliveries from Canada. At present, China is receiving uranium from Kazakhstan and Namibia already.
In April, it also became known that Australia recently gave approval to uranium deliveries to Taiwan - a non-signatory to the Nuclear Non-Proliferation Treaty. Delivery contracts have already been signed; the deliveries are to be managed via the USA, since direct exports are illegal.

Uranium exports to India
India, being not a signatory to the Nuclear Non-Proliferation Treaty, cannot buy uranium in the world market, after conducting a nuclear weapon test. The domestic uranium production, however, is not even sufficient to supply the presently operating nuclear power plants in the country, rather than any new plants proposed for construction. In fact, the existing Indian nuclear reactors are running at reduced output levels for several years already - for uranium supply shortage.
Therefore, development of a thorium-powered nuclear power plant line is being considered; but this can solve the problem only in the long term (if at all), since uranium is first required to irradiate natural thorium to obtain the fissile isotope of uranium-233.
Mining of very low-grade uranium deposits is being planned in several parts of the country - facing stiff opposition from residents and indigenous groups living in those areas (see above).
Based on the nuclear co-operation treaty to be concluded with the U.S., India now hopes to be able to buy uranium in the world market soon. In fact, U.S. based WM Mining International Ltd already has agreed on a contract with India's Nuclear Fuel Complex to sell 500 metric tonnes of uranium a year and is waiting for the Indo-US civil nuclear deal to go through to execute it.
India pressed Australia to export uranium, and Australia no longer appears to be opposed to uranium deliveries to India now, although India still refuses to sign the Nuclear Non-Proliferation Treaty. Further, Nuclear Power Corp. of India announced to spend US$ 1.2 billion on stakes in Canadian and Australian uranium mines.
India also announced to continue uranium mining, even if imports for civilian purposes would become possible; the imports obviously would set the domestic uranium production free for military purposes.

Uranium exports to Russia
Given the looming uranium supply crisis from domestic sources, Russia attempts to re-establish uranium trade with Kazakhstan and Uzbekistan; Russia signed a US$ 1 billion uranium supply contract with Kazakhstan, and Russia plans to invest US$ 746 million in CIS uranium mining by 2020. In addition, Russia is seeking uranium imports from Australia.

Uranium imports from Kazakhstan and Uzbekistan
Given the tightening supply situation on the world uranium market, several consumers are now looking for uranium deliveries from Kazakhstan and Uzbekistan, where uranium in-situ leach capacities are being expanded at a very large scale. Given the extremely poor standing of Kazakhstan and Uzbekistan in dealing with the legacy of former uranium mining, and given the unresolved problems with decommissioning of in-situ leach mines elsewhere (for example in the U.S., see above), these deals might result in an environmental disaster waiting to happen.
The European Union and Japan plan to procure more uranium from Kazakhstan, and Kazatomprom forms a joint venture with Japanese companies for the development of the West Mynkuduk deposit by uranium in-situ leaching. Japan signed an agreement for the development of the uranium industry in Uzbekistan, deliveries to Japan are to start in 2007. South Korea signed a deal with Uzbekistan for uranium deliveries, and Korea Resources forms a uranium joint venture in Uzbekistan.

Source and Contact: Peter Diehl, 12 December 2006. WISE Uranium Project

PRO-NUCLEAR LOBBY ACTIVE IN EUROPEAN PARLIAMENT

A report by Corporate Europe Observatory (CEO) documents how nuclear industry lobbyists are targeting the European Parliament ahead of a crucial vote on December 14. Their lobbying offensive, co-ordinated by the umbrella group Foratom, aims to prevent a binding EU target for renewable energy (which excludes nuclear) and instead make the EU strive for 'low-carbon technologies' targets (with includes nuclear energy). This EU strive for 'low-carbon technologies' could create massive new momentum for nuclear energy in Europe.

(650.5772) CEO - Energy is a hot issue in Brussels. In less than a month, the Commission will publish its Strategic Review on Energy (scheduled for 10 January 2007). This is preceded by a critical vote in the European Parliament (EP) on 14 December on the so-called Morgan report on the Green Paper on Energy. The rapidly growing and dramatic effects of climate change leave no doubt about the need to reduce dependency on fossil fuels. This need for action has unleashed a new phase in the tug of war between nuclear and renewable energy. This is

supplemented by grand political talk linking broader trends in geopolitics with continuing energy supply needs. This combination creates a situation ripe for heavy lobbying.

The more than 40 nuclear lobbyists permanently based in Brussels are frantically working to influence MEPs in advance of December 14's vote in Strasbourg (unfortunately this is well after the deadline for this issue of the Nuclear Monitor). They do work in tandem with a well-organised group of pro-nuclear MEPs from around Europe, which are tabling amendments identical to industry lobby demands and building wider political support for these positions. The anti-nuclear movement, in contrast, is weakly resourced and seriously under-represented in Brussels, an imbalance the nuclear industry works hard to exploit.

The CEO report (entitled: "Nuclear Power Grab? Corporate Lobbyists and MEPs Working in Tandem to Spin Nuclear Energy as Sustainable", December 2006) also highlights the problematic role of intransparent MEPs-business forums, which are for instance used to take MEPs on all-expenses-paid propaganda trips (paid for by the nuclear industry) to visit nuclear power plants in different European countries, the most recent happened early December. Under the cover of these MEPs-business forums, nuclear companies have organised lectures to influence MEPs, some of these even took place inside the Parliament's building in Strasbourg.

The vote on December 14 is crucial because it happens less than one month ahead of the publication of the Strategic Review on Energy by the European Commission. Foratom hopes to get a clear pro-nuclear signal from the European Parliament and there's a large risk that this may indeed be the outcome of the vote. The main lobbying objective towards this important Commission report is to get a target included that 60% of the EU's electricity demand should be covered by 'low-carbon technologies', including nuclear power. This would create massive new momentum for nuclear energy in Europe.
This outcome would be in stark contrast with public opinion in Europe: according to a survey of Eurobarometer, Europeans are very favourable to solar (48%) and wind energy (31%), while nuclear is only supported by 12%. ("Attitudes towards energy", October - November 2005, p9).

The draft report of the European Parliament energy committee calls for binding EU targets for the share of renewable sources in primary energy, but nuclear lobbyists hope to replace this by the 'low-carbon technologies' phrase. These words sound similar, but the implications for the future of energy supply in Europe are enormous.

The CEO report can be downloaded at: http://www.corporateeurope.org/docs/NuclearPowerGrab.pdf

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ATOMSTROYEXPORT / AREVA TO BUILD AES-92 IN BELENE

Western banks continue to withdraw their interest from the project

30 October 2006, the Bulgarian utility NEK announced that a consortium of Russian Atomstroyexport and French / German Areva NP (Areva and Siemens) has won the tender for building the Belene Nuclear Power Station in the north of the country.

(650.5773) WISE Czech Republic - On a press conference a day later, NEK in the presence of Bulgarian Energy and Economy Minister Ovcharov gave further details. Atomstroyexport / Areva NP are to build a completely new AES-92 power station, using two VVER 1000/B466 reactors. The contract price is foreseen to be 3,997 Billion Euro and the reactor should have a 60 year life-time. Atomstroyexport / Areva NP said to be able to construct the first block in 6,5 years after start of construction and deliver the second block a year later. The reactors are according NEK to deliver electricity for 3,7 Euro cent per kWh. Over 200 experts from eight countries were needed to judge the proposals.

The Atomstroyexport consortium won the tender over the Czech Skoda Alliance consortium that budgeted 4,098 Billion Euro for the same configuration. Both Atomstroyexport and Skoda Alliance leader Skoda JS are majority owned by the Russian State and the Russian state company Gazprom, which makes it likely that the offers have been coordinated. Former Kozloduy director and current researcher at the Vienna Institute for Risk Analysis Georgi Kasschiev, who also blew the whistle on the INES 2 incident in the Kozloduy nuclear power plant earlier this year, criticised the choice as binding Bulgaria to nuclear power dependency on Russia. Russian's head of the Federal Agency for Nuclear Power called the choice a "big day for Russia" and he added that "Russia is now returning to the European nuclear power construction market."

New reactors
NEK argued its choice of two completely new reactors over finishing the already existing basis for VVER 1000/320 reactors with a higher chance on acceptance of these new reactors in the European Union. During an intensive information campaign preceding this decision, a coalition of Bulgarian and international NGOs had made clear to the public, interested banks, the EU and the Bulgarian government that the VVER 1000/320 would not be able to receive an operation permit in Germany because of safety concerns. They also

had pointed to the bad track record of Skoda Alliance in Temelín in the Czech Republic.
The AES-92 has not been licensed before in Europe. At present Atomstroyexport is constructing an AES-92 power plant in Kudankulam in India, where construction started in 2001 and the first block is supposed to be loaded and become critical in 2007 with the second to follow two years later. The AES-92 is presented by Atomstroyexport as a Third Generation reactor. It is a further development of the VVER 1000/320 model, fitted out with an extra strong containment with stainless steel lining and a core-catcher.

Budget and construction time overdraws to be expected
The total building costs of the Belene NPP have not been made public. The almost 4 Billion Euro contract budget only represents the construction by Atomstroyexport. It does not include preparation costs, infrastructural works and an interim nuclear waste storage to be built on or near the site. Although Atomstroyexport mentioned a construction time of 6,5 to 7,5 years after start of construction, Bulgarian authorities spread the impression that the first block would be able to go on-line in 2013. It is not clear whether still to be expected delays because of a new Environmental Impact Assessment and running court cases started by Bulgarian citizens and environmental organisations are taken into account. Greenpeace and WISE / NIRS consultant Jan Haverkamp expects adaptations of the AES-92 to European standards, as well as the new involvement of Areva NP in the construction to lead to large delays and therefore called the estimated building time of 6,5 years as highly optimistic.

Over 2000 Euro / MW installed
The 4 Billion Euro value of the contract came as a surprise, which even forced Greenpeace and WISE / NIRS to adapt their October 30 comment of the project being "Russian, fast and cheap" after the October 31 press conference to "Russian, slow and expensive". Earlier this year prices were mentioned of around 2,7 Billion Euro with rumours that Atomstroyexport had made an offer for 2 Billion Euros. The reason for this high budget can be found in the choice for completely new reactors. Atomstroyexport is to dismantle the already built parts of two VVER 1000/320 blocks on the Belene site and is allowed to use these parts in Russia as spare parts for reactors there. These parts represent a value of several hundreds of millions of Euros. Taking this into account sees the Belene NPP roughly equalling the investment costs of the Finnish Areva built EPR reactor on well over EUR 2000 / MW installed.

Belene a financial nightmare
Financing the project appears to be a major problem for Bulgaria. After the Bulgarian government announced early October that NEK was going to own Belene for 51%, the financial broker Standard & Poor's directly downrated the company from "developing" to "negative" with Belene as reason. But also banks that had been claimed as interested by Bulgaria's Economy and Energy Minister Rumen Ovcharov withdrew their interest. This includes the Bayerische Landesbank, Commerzbank, Société Générale / Komercni Banka, KBC / CSOB, Deutsche Bank and UniCredit / HVB / Bank Austria - Creditanstalt. These banks did so after they had been informed by Greenpeace, WISE/NIRS and CEE Bankwatch about the risks involved to the project. Risks mentioned next to financial ones included the fact that the NPP is to be built in a seismic active area, that the EIA - which denies this fact - knows large flaws and is already two years under court procedures, and that it is likely that Belene, once coming on-line, will have to face a highly dynamic saturated market. The banks argued their rejection of the Belene NPP project with economic reasons as well as the fact that the project does not fulfil their strict sustainability criteria. A coalition of NGOs approached UniCredit / HVB / BA-CA on Friday the 13th of October in 23 countries to bring the message across. Pressure on the UniCredit Group continuous to prevent the bank from participating in other future nuclear projects like Mochovce in Slovakia and Cernavoda in Romania.
On the October 31 press conference a group of six more banks, Euratom and the European Investment Bank were mentioned as source of finance. Deutsche Bank a day later confirmed to Greenpeace that it featured falsely in that list and definitely had no interest in the project. The other five banks, Credit Suisse, BNP Paribas, JP Morgan Chase, Merrill Lynch & Co. and the Lehman Brothers Bank were contacted early December by Greenpeace and CEE Bankwatch with information on the risks involved in Belene.

Euratom
The Bulgarian Government made an aggressive publicity run with the claim that Euratom was going to finance 300 Million Euro from the Belene NPP budget. Euratom spokes people denied towards Greenpeace that any application had been received, nor any communication had taken place to this respect. Mark Johnston of the Greenpeace EU Unit: "Someone is lying here."

Russian banks not sufficient
Next to the mentioned banks, the Bulgarian authorities mentioned interest from a Russian pool of banks, including Gasprombank, Sberbank, VTB and Vnesheconombank, with an export guarantee from the Russian state. Observers note, however, that it is likely that this group will not be able to cover the full 4 Billion Euro budget and that Western capital will be needed as well.

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ITALY SIGNS REPROCESSING CONTRACT WITH FRANCE

The French government announced on November 24, an agreement with the Italian government on the transport of Italian highly radioactive nuclear waste to the French reprocessing plant at La Hague, where weapons-usable plutonium will be extracted. Italy will use France as a nuclear dump site because it has no storage facilities to take back the reprocessing waste.

(650. 5774) Laka Foundation - The Italian nuclear waste was generated in its nuclear power plants, the last of which was closed in 1990, following the referendum of 1987, one year after the Chernobyl accident. In total, some 235 tonnes of so-called spent nuclear fuel are stored in Italy. The Italian government now intends to dispose off the waste by sending it to France, which has already received thousands of tonnes of such waste from Germany, Japan, Belgium, Netherlands and Switzerland.

The purpose of the framework agreement which was signed is to commit the Italian government to take back the large volumes of wastes generated by reprocessing between 2020 and 2025, thereby allowing Italy to use La Hague for interim storage of its waste. But Italy might not be able to honour this future commitment because Italy has no clear plans to build facilities to store reprocessing wastes,. In November 2003 a site at Scanzano (southern Italy) is chosen for the construction of a nuclear waste dump but in December 2003 the Italian government cancels the plan after massive public opposition.

Any future contract signed between the Italian waste company SOGIN and the French reprocessing company Areva therefore threatens to become a de-facto dumping contract.

An important issue is that under the new France waste law, storing the Italian waste till 2025 is not illegal any more. In the 1994 law, it was required to return the reprocessing wastes as soon as technically feasible, which is clearly before 2025. Now, under the new law its simply said that there needs to be a bilateral agreement in which the government sending the spent fuel commits to take back the waste within the timeframe which is agreed. That's much weaker of course. Thus this is a very crucial agreement, the first after the new law came into force and it immediately proves to what extent the new law weakens the old one. Greenpeace France obtained major legal victories using the old law. Reaction of this right-wing France government: just change the law to allow France to remain an international dump site.

The 235 tonnes of Italian fuel has to be handed over from the beginning of 2007 to half-way through 2012. The waste will then be returned to Italy from January 2020 to December 2025. Italy will begin work on selecting a site for a geologic repository for the waste in 2009, with the final site selection being made in 2012.

In 1980 Italy signed a reprocessing contract with BNFL (UK) for 53 tonnes of spent nuclear fuel from the Garigliano reactor. The first transport took place 23 year later, in April 2003, and the thirteenth and last in February 2005 (and was blocked by Greenpeace).

Sources: WNA News Briefing, 22-26 November 2006 / Greenpeace France, Press release, 25 November 2006 /

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BNG, GUILTY OF 'SERIOUS FAULTS AND FAILURES', FINED £500,000 FOR THORP ACCIDENT

At Carlisle Crown Court, British Nuclear Group (BNG) was fined £500,000 (currently about 575.000 Euro) for the accident in April last year at Sellafield's THORP. The accident was classified at Level 3 on the International Nuclear Event Scale, the worst recorded accident at Sellafield for many years.

(650.5775) Laka Foundation - BNG, who operate Thermal Oxide Reprocessing Plant (THORP) under contract to site owners the Nuclear Decommissioning Authority (NDA), had pleaded guilty in an initial hearing at Whitehaven Magistrates Court earlier this year to three charges brought by the Health & Safety Executive (HSE). The charges, under the Nuclear Installations Act 1965, related to breaches of Sellafield site licence conditions, and were summarized by HSE as (i) failing to make and comply with written instructions, (ii) failing to ensure that safety systems are in good working order and (iii) failing to ensure that radioactive material is contained and, if leaks occur, that they are detected and reported.
In fining BNG, Judge Openshaw told the Court that as BNG had pleaded guilty to the offences, he was reducing what he considered to be an appropriate level of fine of £750,000 to £500,000. In reminding the Court of the 'cumulative failures' and the 'worker culture of tolerating alarms' that had lead to the accident, he added that BNG's failure to detect the leak 'probably within days' rather than 8 months was a serious failure worthy of condemnation.
The accident, reported to the HSE's Nuclear Installations Inspectorate (NII) on April 20, 2005, entailed the

undetected spillage of 83,000 litres of highly radioactive dissolved nuclear fuel and nitric acid over an estimated 8 month period from fractured pipework in the plant's Feed Clarification Cell. The plant was closed immediately and has remained shut down since then. During the closure, which has seen 18 months of reprocessing business put on hold, 2 improvement notices and 49 recommendations have been served on BNG by the NII along with a further 18 recommendations imposed by BNG following its own Board of Investigation into the accident..

At the time of the accident, (THORP's 11th year), the plant was running almost 3 years behind schedule, with just 5729 tonnes of spent fuel reprocessed from a total of 7000 tonnes originally scheduled for completion in the first 10 years of operation (the baseload). The outstanding fuel includes over 700 tonnes of foreign fuel, with the remainder being UK fuel from British Energy's (BE) Advanced Gas Cooled reactor stations. If and when these 'baseload' contracts are completed, a further volume of fuel (post-baseload), largely from BE, is also contracted for reprocessing at THORP.

Restart of the plant, already re-scheduled a number of times, is now set for early 2007, providing all required recommendations have been 'closed out' to the satisfaction of the NII and with the agreement of the NDA. THORP's future however currently remains under close review by the NDA and by the Government who will make the final decision as to whether further reprocessing at the plant can be justified.

The costs of the accident, not yet fully quantified, have been put variously between £50M and hundreds of £M. Modifications (rather than repairs) to THORP's damaged Cell, now completed, will allow an eventual re-start of the plant by by-passing the damaged equipment and pipework. As a result of the modified system, THORP's future throughput rate is expected to be limited to well below the plant's design specification.
Martin Forwood added: "We have major concerns about the restart of THORP given that the systems and pipework that will be used share exactly the same history as that which failed so comprehensively during the accident from metal fatigue and other stresses. As the plant can never again operate as originally designed, there are no good grounds for resuscitating this White Elelephant. We will continue to call for its immediate closure".

More Sellafield News:
Reprocessing at the Sellafield complex has been halted completely early December as a safety precaution following discovery that radioactivity has been leaking into an evaporator's cooling water. This means Magnox reprocessing will not be able to restart until the Nuclear Installations Inspectorate gives the all-clear, which is not expected before January.
Meanwhile, British Nuclear Group has signed a new MOX fuel supply contract with German utility EnBW kernkraft, for the supply and transport of MOX fuel to the Neckarwestheim 2 reactor. It also requires EnBW to commit to convert all the plutonium arising from their reprocessing contract at Sellafield into MOX. But this presumably means BNG has to get the Sellafield MOX-plant and THORP working properly.

Sources: CORE Press Release, 16 October 2006 / Whitehaven News, 8 December 2006 / Renew, the NATTA newsletter # 164, Nov/Dec 2006

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Carrie Barefoot Dickerson Dies at 89

Like many people drawn into activism, Carrie Dickerson started out as a mother with questions. When plans were announced to build a nuclear reactor near her home in Oklahoma, "Aunt Carrie", as she came to be known, wanted to know more about nuclear energy. After poring through documents sent her by the Atomic Energy Commission (now the NRC), she needed no further convincing of the dangers and began a nine-year battle in May 1973 to stop the Black Fox nuclear plant.

She succeeded, but only at enormous personal cost to her and her family's livelihood. She and her husband Robert, both farmers, lost their entire savings, their nursing home and almost the family farm as they fought through the law courts, at hearings and sometimes in rallies on the street. Along the way, Carrie founded her own organization, Citizens' Action for Safe Energy.

In her landmark book, "Aunt Carrie's War Against Black Fox Nuclear Power Plant," Dickerson, who never expected to become an activist, describes her hesitation in putting her story down on paper rather than simply getting on with her life: "Yet overriding my personal feelings was a feeling of obligation to society. I have a responsibility to the people who helped me stop Black Fox, to the victims of Three Mile Island and Chernobyl, to the victims of other nuclear tragedies, including those in our own state of Oklahoma, and to potential victims of possible future nuclear disasters. Because of the widespread effects of the Chernobyl disaster, we now know that the problems of nuclear power can affect everyone, that there is no safe place. There are no fence lines, no boundaries, no safeguards, to contain radioactive fallout."

She remained active right up to the end. She authored a children's book "Harvesting the Wind: Fourteen Centuries of Wind Power" which was published just this year. Her friends started the Carrie Dickerson Foundation in her honor which awarded NIRS a generous grant recently. She even tabled for NIRS at a Bonnie Raitt concert from her wheelchair last year.

She died in her sleep in the same nursing home she had sold years ago. She was truly an inspiration to us all and we at the NIRS office greatly enjoyed our frequent telephone conversations with her.

In honor of her brave and benevolent spirit NIRS will be naming a lifetime achievement award after her.

Harvesting the Wind is available at:
http://stores.ebay.com/Songbird-Books-and-Treasures

Review of "Nuclear Power is Not the Answer"

The book "Nuclear Power is Not the Answer", written by Helen Caldicott, provides a highly readable overview of why it is important to oppose the current push which is occurring in the USA, UK and many other countries for a resurgence of nuclear power. For people who are new to the issues, it provides a very good general introduction, while for people with more experience campaigning against nuclear energy, it gives a good global update of developments. The book includes in depth discussion about a number of important issues, as well as providing useful information on original sources and wide use of footnotes.

The book includes a discussion of how the nuclear industry is able to reap large profits for private companies, whilst at the same time socializing the costs and risks associated. Importantly, the book provides an in depth discussion of the US Energy Bill passed in 2005. This includes updating the notorious Price-Anderson Act, a longstanding act which virtually exempts companies from any responsibility for insurance, pushing almost all the burden on to the state and public finances. The new bill also includes provisions which make it much more difficult to get a public debate on specific nuclear power stations, and easier planning processes for the companies.

The book also has well synthesized historical information about the Three Mile Island and Chernobyl disasters, as well as about a number of "near misses", examining their cumulative effects since the accidents occurred. Also included is an important discussion about aging reactors. While this has always been a concern in the abstract, now it is becoming a concrete problem - there are an increasing number of very old reactors all over the world, and the question of how to deal with them is, quite literally, burning hotter than ever, with no real solutions presenting themselves.

Also included is a terrifying account of Yucca Mountain, a site intended to store the entire volume of radioactive waste for the whole USA. Another alarming piece of information provided concerns a law that effectively prohibits, or at lease severely constrains, the World Health Organization's ability to carry out research and studies concerning the health impact of atomic energy and real or potential nuclear accidents.

While clearly written from a campaigns perspective, and by a committed anti-nuclear fighter, the book is nonetheless slightly weaker when it comes to providing concrete suggestions as to how to fight the nuclear industry and build up a renewable energy based energy system. Nor is there either any description or analysis of anti-nuclear struggles which are occurring throughout large parts of the world. There is also next to no analysis of the role of nuclear energy within the capitalist world economy as a whole - and why the industry is coming back so forcefully at the current moment specifically. Nonetheless, the book offers a good factual basis for anyone wanting to go further with these themes, and to organize actively against the industry.

"Nuclear Power is Not the Answer". By Helen Caldicott, New Press 2006

DID ISRAEL USE EXPERIMENTAL BOMBS WITH (ENRICHED) URANIUM IN LEBANON?

At the end of October The Independent (UK) reported on the possible find of enriched uranium in a bomb crater at Khiam in the southeastern region of Lebanon. The report is based on the partly analysis in a UK Defence laboratory of a sample that would have been taken from the crater. In the frontpage article Dr Chris Busby from the European Committee on Radiation Risks (ECRR) speculates on the use of an experimental uranium bomb by the Israeli Defense Forces (IDF).[1]

(650.5776) Laka Foundation - Is this the smoking gun of what the 'believers' in the anti-uranium weapons movement have always believed, namely that uranium is used in large guided munitions; or do we have to deal here with constructed proof caused by a state of mind, called tunnel vision?

During the Israeli attacks on Lebanon I met with a friend of the Amsterdam based grassroots organization D4net, an organization which is among others dealing with Human Rights issues and the Middle East. We both had the feeling that we have to bring a visit to Lebanon to express our solidarity with the grassroots movements in Lebanon and to build contacts with these organizations. Because the entrance to Lebanon was blocked by Israel we had to wait until the Israeli blockade was lifted, which finally happened in the second week of September. Meanwhile an article appeared in the Lebanese (English) Daily Star that reported on radioactivity that was found in bomb craters at Khiam and at-Tiri. Dr Mohammad Ali Kobeissi, a member of the Lebanese National Council for Scientific Research, declares that a crater caused by an Israeli munition in the Jlahiyyeh quarter in Khiam contained "a high degree of unidentified radioactive materials" and: "A team from the council will test a sample from the crater in order to find out what kinds of radioactive materials it contains." [2] In order to verify this I decided to take the radiation measuring equipment of our office with me to Lebanon.

Our journey to Lebanon brought us into contact with a wide range of people: aid workers, artists, representatives of political parties, journalists, taxi drivers, scientists, and so on. We also saw a considerable part of Lebanon: Beirut, the south of Lebanon and the Bekaa Valley.

First we witnessed the destruction caused by Israel's attack, and the impact that has had on Lebanon and the Lebanese people. To begin with Beirut: the city has mainly remained intact, but the part which was bombed - the Dahieh area - has been partly flattened. The buildings are mainly nine-storey apartment buildings, mostly homes. It is estimated that tens of thousands of houses have been totally destroyed. In the direction to the south and to the Bekaa Valley, all overpasses and highways have been bombed, in the Bekaa Valley most of the factories too. Now Lebanon has almost no industry, because all of the industry that was present has been largely destroyed.

It was also conspicuous that the fuel tanks at the airport and the power station with an oil terminal south of Beirut had both been set on fire by aerial attacks. In general, the villages in the south have been between 30% and 70% destroyed. Most of the targets destroyed did not serve any direct military purpose. Therefore the conclusion is that it has been attempted to damage the land and the economy in order to minimize the basis for Hizbullah's resistance.

One of the major post-war problems is the wide-spread use of cluster munitions by the Israeli Defense Forces, mainly in the southern region of Lebanon. During the last three days of the war, while a solution was in sight, Israel used all of their 35 years old US cluster shells, stemming from stocks that were made during the Vietnam war. As a consequence the population and the mine clearance teams have to deal with submunitions (bomblets) with a high dud rate. According to Human Rights Watch: "Cluster submunitions with high initial dud rates effectively become antipersonnel landmines." A million of these 'landmines', more than the US has used in Iraq, Kosovo or Afghanistan, has been added to the thousands of landmines and unexploded shells from the previous military conflicts. Every day two or three people are maimed, wounded, paralyzed or killed by exploding submunitions, most of them are children. Meanwhile the farmers can't harvest their crops and can't plough and sow their winter crops, which is a serious problem, because the southern region and the Bekaa Valley are economically mainly depended from agriculture. [3]

During the last weekend of our 15-days during stay in Lebanon we visited Dr Kobeissi in the vicinity of the town Nabatiyeh, the capital of the southern Nabatiyeh district. After explaining his career as a nuclear physicist he told about his findings in the bomb craters of Khiam and at-Tiri. He tested these pits with a geiger counter from a local scrap dealer and that these results indicated the presence of uranium. He stressed that he has never said 'depleted uranium' and regretted the political bickerings this has caused among the different sects. He measured 50 nanosievert (nSv) per hour in the outside rim of the pits and 300 nSv in the heart of most pits with the exception of one which measured 800 nsV/h. He also declared that these dose rates in the pits decreased considerably day by day. On the suggestion that these higher measures could be due to the concentration of uranium in the ash ('concentrated background radiation from the burnt material') he agreed that this possibility is highly likely.

At his home Kobeissi had collected tens of samples from shrapnel and soil from more than 50 different places, among which samples from the Khiam-crater. None of these samples measured a higher radiation dose rate than the background radiation dose rate. The samples were measured with a calibrated geiger counter from Laka Foundation.

Before I went to Kobeissi I met with Dai Williams from the UK, the author of a number of reports in which he explained

the types of bunker busters that were used in Kosovo, Afghanistan and Iraq. Though in none of these reports is delivered any proof that one or more of these bunker busters contains DU he is continuing to spread this as it is almost a fact. Also, he claims the strange idea that besides DU the US military also uses 'Natural Uranium' (NU) in their weaponry in order to mask the use of uranium, because of the same isotope ratio NU has as the mineral uranium, which is everywhere around us. Now, Williams visited Lebanon searching for the smoking gun. While meeting him at the office of the Lebanese daily As Safir he checked all the pictures taken by one of their photographers during the war and thought to see in a number of explosions the clouds of uranium oxide dust. Remarkably, Human Rights Watch Emergencies Director Peter Bouckaert told us that only a few bunker busters have been used on bridges. Even if it might be true that bunker busters with a load of DU would exist, it is highly unlikely that these were used on bridges.

Later on it appeared that Williams took a soil sample with to the UK. Consequently Chris Busby took care for the analysis of this sample at a laboratory. It has to be noted that Busby's reputation is controversial. Last February he was quoted in the international media asserting that uranium oxides dust particles from the 2003 Iraq War were found on air filters at the British nuclear weapons complex in Aldermaston. It is very unlikely that dust particles traveled that far (considering wind-directions, etc), but there is another reason why this is very improbable. Franz Schönhofer, who was involved in building modern measurements stations across Europe states: "That these claimed elevations would have occurred at only one single sampling station after the "particles" travelled all the way from Iraq to Aldermaston is not explained in this report. Europe is tightly dotted with aerosol sampling and measurement stations." [4]

On October 28 The Independent reports about the possible use of "a secret new uranium-based weapon" by the IDF in southern Lebanon. Chris Busby bases this claim on two soil samples with "elevated radiation signatures" taken from a bomb crater and the partly analysis of one of the samples, a 25-grams soil sample. The analysis of this sample indicates the presence of (very) slightly enriched uranium. According to journalist Zeinab Ghosn from the Lebanese daily As Safir this report has caused panic among the Lebanese population. Actually unnecessary panic, because the partly analysis of a 25-grams soil sample is too small and as a consequence the obtained data is too poor to make conclusive statements. Therefore Busby's claim has to be condemned as a highly irresponsible act. Though Israel has a bad reputation in using dirty and experimental weapons in Lebanon - the use of phosphor bombs has been proven during the last war - there is no reason to accuse Israel of the use of radioactive weapons.

In the first week of November UNEP reports that there investigation teams have not measured radiation levels higher than the background level in Lebanon. In addition, based on laboratory analyses of samples, UNEP excludes the military use of DU or use of uranium with another composition of isotopes in Lebanon. [5] On the analogy of the measurement stations above the question is raised why Busby c.s. finds slightly enriched uranium, while the UNEP and the Lebanese National Council for Scientific Research find nothing. Even more peculiar, in the Daily Star of December 7 Busby states that again (water) samples from the Khiam crater, has been tested positive for (slightly) enriched uranium. [6] The council and UNEP have both vowed to follow-up on the issue and conduct more tests. Though the results of the independent scientific teams employed by UNEP are not yet published it has to be said that they are experienced and have a good reputation in accuracy and scholarship concerning there field work and laboratory analyses on DU. On the contrary Busby can't be considered as an unbiased scientist, just like his colleague Dai Williams (psychologist). From scientific point of view they are at least controversial.

The results of UNEP are in line with the expectations. Laka had already taken the position that the use of DU munitions by the IDF had to be almost excluded. Firstly Hizbullah hadn't any armoured targets, therefore there was no need at all to use antitank shells. Secondly there is no single indication that DU or uranium with another isotopes composition are manufactured in cruise missiles, large guided munitions or so-called bunker buster bombs, or whatsoever, let alone that such weapons might have been used. This position was more or less confirmed by the measurements done by the undersigned, a co-worker of Laka Foundation who participated in a delegation from the Amsterdam-based group D4net. As said above, tens of samples, including samples from the craters at Khiam and at-Tiri, were measured at the home of Dr Kobeishi in Nabatiyeh. No higher level than the background radiation level was detected. The results of UNEP confirms that there is no evidence of uranium-based munitions used in Lebanon. Their report will be published one of these days (mid-December).

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(Busby stated in an e-mail message from December 11 that he was wrongly quoted in this article. "Depleted" has to be "enriched".)

December 2006

To: Anti-nuclear, safe energy & environmental organisations
From: WISE and OOA Fonden

Use and protection of the Smiling Sun logo

We ask for your cooperation to maintain the integrity, and oppose misuse, of the logo

Dear friends in the anti-nuclear movement,

The nuclear power industry and its governmental allies are increasing their efforts to promote nuclear power as a "clean air" energy source and to encourage the construction of new nuclear reactors worldwide. Yet all major threats generated by nuclear power remain. These include reactor safety, disposal of highly radioactive waste and terrorism - just to name the most significant.

In response to this the environmental community is stepping up its efforts as well. We are all seeking new methods and arguments to reach the public and, at the same time, using what has worked until now.

One of the tools which has been with us for more than 30 years of anti-nuclear campaigning is the symbol of the 'Smiling Sun', expressing our call: NUCLEAR POWER? - NO THANKS in many languages. The intention behind the design was to create a friendly and open-minded logo, expressing a polite "no thanks" after giving consideration to the matter; a logo indicating communication by dialogue. Right from the beginning, this logo has proved to be extremely strong and powerful.

With enthusiasm and imagination the Smiling Sun logo was and still is being used succesfully by huge numbers of groups in many countries. We would like to keep it this way. However a matter of concern is that the logo, because of its extraordinary appeal, is also quite often being misused for commercial purposes or counter-used by pro-nuclear campaigns. Also, political parties like to take ownership of the logo.

Brief history of the Smiling Sun logo

The Smiling Sun was designed in April 1975 within OOA (Organisationen til Oplysning om Atomkraft), which was organizing the Danish anti-nuclear campaign. From 1976, the logo was translated from Danish into some 45 other national and regional languages. The Smiling Sun rapidly became a common symbol in the anti-nuclear movement worldwide.

The Smiling Sun also became a very important and decentralized fundraising tool.

In 1976 the OOA registered the logo as a trademark in Denmark and a number of other countries. Effective from 13th December 2004, the logo has been recognized as EU Community Trademark no. 004193091 and as such is protected in the 25 member countries of the European Union.

The trademark protection serves to:

- Secure the integrity and independence of the logo
- Reserve its utilization to the anti-nuclear movement worldwide
- Enable action to be taken against abuse and alteration of the logo

From 1978, substantial revenues from sales of the Smiling Sun were used to initiate, and for about 10 years partly finance, the work of WISE, the World Information Service on Energy. OOA was dissolved in 2000 after securing Denmark's future as a non-nuclear country and having the neighboring Swedish nuclear plant at Barsebäck closed down. All rights relating to the Smiling Sun logo were at that time transferred from OOA to "OOA Fonden", which was set up solely to care for the protection and integrity of the logo. The bulk of the remaining Smiling Sun material was donated to the Amsterdam office of WISE. Stickers and badges in some 40 languages are still available from the Smiling Sun Shop on the WISE website.

With this letter we wish to reach you with the following messages

- If you come across what appears to be misuse of the logo by commercial, political, or pro-nuclear interests, we kindly ask you to contact either WISE or OOA Fonden as we can then take the necessary steps to stop the infringement. Incidents of misuse seem to be increasing.

- If you already use the Smiling Sun in your campaign activities, especially if producing Smiling Sun campaign material for sale, we kindly ask you to give OOA Fonden a brief update. It has proven to be most helpful in fighting commercial alterations and infringement if we can document the extent of use of the logo in anti-nuclear campaigning. You will be offered an agreement giving you full rights to utilize the Smiling Sun.

- If you want to start up production of material displaying the Smiling Sun or are aware of any companies wishing to do so, we kindly ask you to contact OOA Fonden as we can then offer an agreement on production, distribution, sale and use of the logo.

In general, anti-nuclear groups are, of course, free to use the Smiling Sun in their campaigns as long as the wording sticks to the basic NUCLEAR POWER? - NO THANKS in the appropriate language (and with no exclamation mark - the "no thanks" is a considered response to the question) and the material is provided with the symbol ®. We actually encourage any such use and may also provide a print ready master copy. Our interest is mainly to keep record and authorize what is produced and offered for sale.

We will be very happy to provide an agreement - ask for a sample - which, in return for a modest contribution to maintain the protection of the logo, will enable you to use the logo and as well profit from the protection organized by OOA Fonden. Our overall aim is to ensure that profits derived from the Smiling Sun shall be utilized for activities and information to bring about a non-nuclear world.

Yours,

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IN BRIEF

61% of Americans think nuclear power is too costly and too far in the future. While a special working group, installed by President Bush (the National Economic Council which is, more accurate but unofficially called the 'nuclear accelerator working group') oversees the expansion of nuclear power, a national survey, done by the Civil Society Institute, found that 61% of Americans think nuclear power is too costly and too far in the future to address climate change, and favor renewables and increased energy savings. According to the survey, 75% 'would be concerned if nuclear power was focused on at the expense of renewable, clean and safe alternative energy solutions'.
Renew, the NATTA newsletter, Nov/Dec 2006

Chernobyl officials nearing decisison on shelter bid. The French joint venture Novarka appears likely to get the contract to build the long-awaited protective shelter (the New Safe Confinement) over Chernobyl's nuclear reactor No. 4. Novarka's bid came in lower than that of the runner-up, CH2M Hill, a US-Ukrainian venture, which bid US$584 million for the contract, said Ihor Gramotkin, the station's general director. Novarka appears to be the frontrunner because officials must consider the least expensive bid first under tender rules established by The European Bank for Reconstruction and Development, which is funding the arch's construction, Gramotkin said.

Plant manager Gramotkin in September declared invalid a preliminary decision awarding the work to Novarka and unilaterally cancelled the tender. A western official said, however, that last October the Assembly of Donors backing the Shelter Implementation Plan had unanimously supported the EBRD's position that procurement should proceed on the basis of precontract discussions with Novarka. If they are successful, then Novarka will get the contract; if not, discussions will begin with the US-led consortium, he said. Technical and administrative delays have prevented Chernobyl officials from choosing a contractor for the project, which they hoped will be completed by 2010. According to Chernobyl station management, 90% of planned operations for strengthening the sarcophagus (completed in November 1986) are already completed, thanks to activity within the last two years.
Kyiv Post, 1 December 2006 / Platts, 27 November 2006

Austrian protesters block Czech border. On December 3, about 200 Austrian anti-nuclear demonstrators blocked the Czech border at Dolny Dvoriste with tractors to protest against the notorious Czech nuclear power plant at Temelin. "This is the longest blockade since the year 2000," said Roland Egger, spokesman for "Atomkraftfrei Leben" ("Life without nuclear power"). The demonstrators want the Austrian government to voice an official protest against the Czech authorities' recent validation of the Temelin plant. They say the validation violates the Melk agreement signed by the two countries in 2000, as security measures required by the document have not been met. The protesters, whose gathering was sanctioned by the Austrian authorities, gave out yellow balloons, stickers and mulled wine to nearby residents who had turned up at the border crossing, which was decorated with banners reading "Stop Temelin". The neighbouring border crossing at Gmuend was also blocked for about an hour by about thirty protesters on Sunday afternoon. The demonstrators said they were prepared to organise as many blockades as necessary until their demands were met. Ever since Temelin opened in 2000 (being built in 1987), it has been plagued by a series of problems, especially on its second unit, which have forced the plant to shut down its two reactors on several occasions.
AFP, 3 December 2006

US Senate approved US-India nuclear deal. The much criticized bill on nuclear trade with India was approved by the US Senate in the early hours of December 9, following similar action by the House of Representatives the previous evening. The bill now goes to President George W. Bush for his signature. In India, politicians from opposition parties criticized the bill, saying the conditions it imposes on New Delhi are excessively restrictive. But in a December 9 statement, US Secretary of State Condoleezza Rice said the bill was "fully consistent" with two joint statements by Bush and Indian Prime Minister Manmohan Singh. Under the policy laid out in those statements, the Bush administration promised to work to lift US and international bans on major nuclear trade with India, in return for certain nonproliferation steps by New Delhi. NGO's worked hard to prevent this trade-bill with India. India did not sign the Non-Proliferation Treaty, has developed nuclear weapons illegally, and therefor international law does not approve nuclear trade with India.
Nuclear News Flashes, 11 December 2006

Sweden: Ringhals not only troubled by burned transformer. Four weeks after a fire destroyed a transformer and electrical equipment 70 meters from the nuclear reactor itself the Ringhals-3 nuclear power plant resumed production again on December 10.

Why did it take so long? Because personnel of the Vattenfal owned reactor discovered another problem while fixing the non-nuclear related one outside the reactor. A 'saltwater pump' was not functioning and had to be repaired. So it took two weeks longer than expected to get the plant running again. Ringhals management also used the forced outage to prepare the reactor for the change-out of the high pressure turbine, expected next summer. Costs of the troubles; 1.2 million Euro a day that the reactor was not on-line.
Nuclear News Flashes, December 12, 2006 / N24 (German news-tv), December 11, 2006

Piketon enrichment plant: costs significantly higher
USA: The cost of building a proposed uranium-enrichment plant at an old atomic weapons plant near Piketon in southern Ohio is running higher than previously estimated, raising questions about the future of the project, the Dayton Daily News reported November 14. The American Centrifuge project would be used to produce fuel for nuclear reactors by 2011. USEC Inc., the company that wants to build the plant, said in a filing with the Securities and Exchange Commission early November that costs are running "significantly higher" than a prior estimate of US$1.7 billion (Euro 1.27 bn). "These cost increases could make the project uneconomic," USEC said in its filing. "We cannot assure investors that efforts that we take to mitigate cost increases will be successful or sufficient, and cost increases could jeopardize our ability to successfully finance and deploy the American Centrifuge project."
Associated Press, 14 November 2006

Japan's Rokkasho reprocessing plant has produced it's first MOX. The Rokkasho MOX, a mix of uranium and plutonium oxide, was recovered from spent fuel during commissioning tests, the Japan Atomic Industrial Forum said November 2. The amount of MOX produced was not specified; the plant is designed to avoid proliferation issues by producing MOX rather than pure plutonium. Japan Nuclear Fuel Ltd., which owns and operates the plant, plans to start producing MOX in powder form in mid-November, JAIF said. Rokkasho, with an annual design capacity of 800 metric tons heavy metal, is scheduled to begin commercial operation in mid-2007. The plant is operated for Japan's nuclear-owning electric utilities.
Nuclear News Flashes, 2 November 2006

Howard doesn't care about own population being anti-nuclear. The Australian Prime Minister John Howard has dismissed a poll which shows only 17 per cent of Australians back nuclear power while almost 50% think solar power is the best way to tackle climate change. Mr Howard, who has been promoting a nuclear energy industry for Australia, derided solar power as a soft answer which would never be able to replace coal-fired electricity. He said he would not back away from his support for nuclear power because of one opinion poll. "This is going to be a long debate, but I am going to continue to argue reason. I can't have a policy on something like this dictated by an opinion poll," Mr Howard said. "In the end I've got to call it as it is and in the end I have to say that solar and wind will not replace conventional power stations."
The ACNielsen poll in Fairfax newspapers published November 7, found that nine out of 10 people believe global warming is a problem and 62 per cent are unhappy with the Howard Government's response. Almost half of those questioned cited solar power as the best weapon against climate change, while 19 per cent supported a carbon tax on fossil fuels and 17 per cent backed nuclear power.
The Australian, 7 November 2006

Poland eager to join Baltic nuclear energy plans. Poland has proposed to take a 25% stake in a Baltic nuclear plant at Ignalina, in parallel with the agreement last week to build a 400-kiloVolt connection between the Polish and Lithuanian power grids. Polish Prime Minister Jaroslaw Kaczynski and his Lithuanian counterpart, Gediminas Kirkilas, signed the "energy bridge" agreement December 8 in Vilnius. The direct-current connection is expected to cost about 304 million euros and to be completed by 2011, with partial financing by the European Union. Poland is proposing to co-finance the plant, which would be between 800 MW and 1,600 MW, with Lithuania, Latvia and Estonia. The latter countries earlier this year agreed on a tripartite nuclear project to replace Ignalina-2, which Lithuania must close by the end of 2009. However, a Lithuanian energy official said the three Baltic countries must first agree to let the Polish Grid Company, PSE, join the project and decide how the project should be structured and financed.
Nuclear News Flashes, 11 December 2006

UK: NDA responsible for geological disposal
Following the announcement on October 25, by U.K.Environment Secretary David Milliband that 'the responsibility for securing geological disposal of waste should fall to the Nuclear Decommissioning Authority', local pressure group CORE has branded the decision as 'plain stupid and probably unworkable'.
The NDA, whose initial remit of clean- up and decommissioning work at nuclear sites around the country was welcomed by most, now adds nuclear waste disposal to a portfolio to which has already been added Sellafield's commercial reprocessing and MOX fuel business.
CORE spokesperson Martin Forwood said: "By operating Sellafield's reprocessing plant, the NDA is a nuclear waste producer - a mantle hard to reconcile with its clean up remit. Its new role as underground waste dumper as well is bound to lead to conflicts of interest and, as the NIREX report suggests, to accusation of 'done deals' which could lead to successful legal challenges from NGO's. CORE has never supported the NDA's role as waste producer and is wholly opposed to its new role which, with no clear separation of responsibilities, we believe will be unworkable ".
CORE Press release, 26 October 2006

UK: 21% support building reactor within 65 miles of their home. Only 34% of the UK public support new nuclear construction, according to a poll conducted by Harris Interactive on behalf of the Financial Times newspaper. The "skepticism" about nuclear power "suggests that the (UK) government faces a significant challenge in persuading the country that fresh investment in nuclear energy is needed," said the FT November 20.
The public was questioned immediately after the October 30 publication of the Stern Review on the economics of tackling global warming. The opinion poll found that 33% of people in the UK "were either somewhat or strongly opposed" to new nuclear construction. Another third was neutral. Just 21% said they would be prepared to support having a nuclear station built within 65 miles (104 kilometers) of their home, according to the Financial Times. Doubts about building new nuclear stations "are matched by reluctance to accept a high price for fighting climate change". People "are worried about the

potential effects of climate change but are dubious about changing their lifestyles to prevent it," the FT reported.
Nuclear News Flashes, 20 November 2006

USA: Yucca Mountain
According to Edward Sproat, director of the Office of Civilian Radioactive Waste Management (OCRWM), the Yucca Mountain repository will "most probably" not open before September 2020. The Department of Energy said earlier in 2006 that the "best achievable date" for opening the repository was March 2017. Sproat said that the 2020 date takes into account possible program delays from lawsuits that are likely to be filed. He also said that the DOE still plans to submit a licence application for Yucca Mountain to the Nuclear Regulatory Commission (NRC) by June 2008 as planned.
In late 1982 the US Congress established a firm plan for burying used nuclear fuel, and Yucca Mountain was mandated in 1987 with the planned first shipment to the repository in 1998!
WNA News Briefing, 5 December 2006 / Science, 11 October 1985

China: experimental reprocessing plant opened
China has opened its first experimental reprocessing plant for used nuclear fuel. The plant at China National Nuclear Corp's (CNNC's) site in Jiayuguan, Gansu Province, will be used for research and development before construction of a large, commercial reprocessing plant. Construction of the experimental plant, which has a capacity of 50 tonnes of uranium per year, began in 1998. The plant - which uses the Purex process - is expected to begin industrial operation in 2008. The capacity of the plant can increase to a maximum of 75-100 tU per year.
WNA News Briefing 18-24 October 2006

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The NUCLEAR MONITOR

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