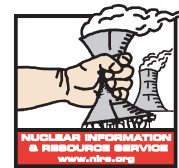


# NUCLEAR MONITOR

A PUBLICATION OF WORLD INFORMATION SERVICE ON ENERGY (WISE)  
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**wise**  
World Information Service on Energy  
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## MONITORED THIS ISSUE:

## ILLEGAL OPERATIONS AT LENINGRAD NPP RESULT IN FATALITY

**The ECOMET-S smelting plant reprocessing radioactive scrap metal and situated within the grounds of Leningrad nuclear power plant experienced another accident at 3 a.m. on December 15, this time resulting in the loss of a young man's life.**

(640.5738) **WISE Amsterdam** - An explosion in the plant's electrically heated furnace caused molten metal, at temperatures as high as 1200°C, to be expelled hitting three workers, one of whom, 33 year old Vitaly Lanbrozo, subsequently died from his injuries. The other two men, 22 and 32 years of age, received burns covering up to 90% of their bodies and remain in extremely serious condition at nearby hospitals.

A spokesperson at the plant near the town of Sosnovy Bor, west of the city of St. Petersburg, said that the explosion had been caused when production rules were violated. But the fact is that ECOMET-S has never abided by any rules and that, sadly, this accident was the inevitable result of the reckless operations that have been allowed to continue unchecked by state and national authorities despite appeals by environmental groups and local residents for activities at the plant to be suspended.

As yet, the cause of the blast has not been confirmed but as speculation grows, the Norwegian Bellona Foundation has reported that Sosnovy Bor's chief ecologist, Nataly Malevannaya, explained that a violation of the technical process guiding the operation of equipment is thought to be

responsible. Before the radioactive metal is loaded into the kiln, it must be cut to remove air cavities that, when heated, can cause explosion. A special commission is to be established to determine the cause.

### **Unauthorised**

A privately owned company, ECOMET-S has been allowed to operate without the necessary state environmental impact assessment (SEIA) on the design or construction of the plant and although this was reported to state prosecutors by Green World and Greenpeace, among others, on several occasions, no action was ever taken by authorities. In fact, following the horrific accident, deputy state prosecutor Miklina commented that there had been no grounds on which to initiate legal proceedings against the company while admitting that it had been allowed to operate without having conducted the required SEIA. One would have thought that not having completed the mandatory requirements prior to construction would be sufficient grounds but apparently not.

The plant was built with the aid of a US\$50 million investment from Gazprom-bank, part of the Russia's oil and gas monopoly Gazprom. In February 2002 Valery Lebedev, Deputy Minister for Atomic Energy, signed the act that

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allowed ECOMET-S to begin operating with full knowledge of the fact that no SEIA had been approved or even carried out. When interviewed by Bellona Web in October 2003, then-director of ECOMET-S, Mikail Voronkov, said that the company's lawyers were working on obtaining the necessary approvals. The documents still have not been received - perhaps because the plant does not conform to requirements?

Had the plant been regulated, the license issued would have stipulated that it have emergency plans in place and provided guidelines on appropriate levels of emissions among other things. Documents seen by Bellona and Greenpeace indicate that no such plan existed and since the authorities showed no interest, it is not surprising that the company did not initiate one of its own accord.

#### **Radiation levels**

Russia's nuclear agency Rosenergoatom or Rosatom (formerly Minatom) was quick to report that no radiation had been released. According to the agency, the nuclear reactor (of which there are four) closest to the smelting plant (officially said to be 1km away) was undergoing repairs so was not in operation at the time of the blast. Local environmental activist, Oleg Bodrov of Green World said that the plant was actually built 700 metres from the reactor and just 50 metres from a radioactive waste pond.

The claims that no radiation was released was initially questioned because no independent confirmation was available and the local population, lacking complete trust in their authorities, was showing signs of panic. In 2002 the regional ecological laboratory permanently monitoring radiation levels within 30km of the nuclear power plant was effectively closed down by the nuclear agency, then Minatom, when its financing was stopped. The lab had been operating for thirty years. ECOMET-S' public relations officer said that no damage had been done to the vent filters, which collect radioactive particles, of the electric furnace and that meant that no radiation had been released, adding that in any case, at the time of the

accident, the kiln contained only non-radioactive metal. Green World has since been able to measure the gamma background and confirmed that levels correspond with background level, reading 15-18 microentgen per hour. Bodrov also reports that the building housing the furnace was not visibly damaged.

Vladimir Sliviyak of Ecodefense (WISE Russia) has revealed that although the news of the explosion was covered by much of the international media, a Russian official from the Ministry of Foreign Affairs, and part of official delegation at UN forum on energy for sustainable development (Geneva, December 15-16), denied that there had been an accident during a plenary discussion on a paper proposing nuclear power as option for sustainable development. In fact when questioned by Ecodefense, the official told the plenary at the UN meeting that no accident had occurred and that NGOs could not be trusted. Interesting how similar this response was to that of authorities in 1986 - nearly 20 years later, the first instinct of some Russian officials remains steadfast.

#### **Lax safety**

The ECOMET-S plant reprocesses metallic radioactive waste, said mostly to originate from the Leningrad nuclear plant itself, although it is known that metal from elsewhere is also processed there allowing the company to make money from reprocessing as well as from selling on the re-smelted metal. There are no controls over what products can be made from this metal; ECOMET-S can sell it on as clean metal to be used in the manufacture of any number of household products.

This is not the first serious accident to have occurred at the plant. In August 2002, a similar incident left 2 workers injured after they too were burnt when molten metal spilled from a kiln. There have also been other incidents at the plant and in 2003, an incident was caused by defective measuring equipment.

An anonymous worker told Green World that workers had to risk their lives on a regular basis as they were forced to violate safety regulations by

using faulty tools and equipment that were 'repaired' by the workers themselves. The whistleblower added that a lack of air funnels (to remove pollutants) meant that gases and particles containing radionuclides were ingested by staff and after an hour working under such conditions, workers would complain of nausea and headaches as their eyes watered profusely. 'Protective' clothing was said to be so deteriorated that any stray spark would lead to such items catching fire, vehicles transporting radioactive metal were allowed access to the unit without radiological treatment or controls, meal breaks had to be taken in the production building with the contaminated metal and at times, sanitary checkpoints were at times closed leaving cold showers as the only resort after work so workers were left to traipse radioactive dirt to their homes and families.

The death of a worker should not have been required for state nuclear regulatory authorities in Russia to ensure that the company follow the rule of law instead of openly floating regulations and fostering an appalling safety culture - if such a thing can be said to exist at all at ECOMET-S. A man has perished and we would hope that some action will now be taken to ensure that no more will follow. Unfortunately, given the attitude of authorities to date, the worst is feared - that nothing whatsoever will change.

**Sources:** Baltic Newsletter of the Green World, No. 89, December 20, 2005; Ecodefense by email, Greenpeace Russia press release, Bellona, Aljazeera and CBS News, December 16, 2005

**Contact:** WISE Russia or Green World at P.O. Box 93/7, Sosnovy Bor 188544, Leningrad Oblast, Russia  
Tel/Fax: +7 81369 72991  
E-mail: bodrov@sbor.net  
Web: www.greenworld.org.ru

# KEY KHAN NETWORK MIDDLEMAN CONVICTED

**Following an 18-month long juridical process, the district court of Alkmaar in the Netherlands, convicted Henk Slebos, two of his companies and a former employee of five violations of the export law on December 16.**

## **(640.5739) Campagne tegen**

**Wapenhandel** - In all five cases, the goods (graphite, bearings, manometers, O-rings and triethanolamine) were sent to the Institute for Industrial Automation, widely believed to be the purchasing arm of KRL, Pakistan's key nuclear facility, without an export licence.

Slebos was sentenced to a one-year prison term, of which eight months were suspended, and, with his companies, fined 197,500 Euro (approx. US\$237,000). The St-Pancras (NL) based businessman was granted two weeks to consider an appeal and until then remains free. The ex-employee was sentenced to 180 hours of community service and told to pay a 5,000 Euro (approx. US\$6,000) fine.

Remarkably, the case was only pursued by the Dutch authorities following requests from both the German and U.S. governments in 2001, this despite the fact that Slebos had previous history where illicit nuclear technology and Pakistan were concerned.

## **Old school network**

From 1961, the disgraced Pakistani scientist Abdul Qadeer Khan studied in former West Germany, the Netherlands and Belgium, where he received his doctorate. Khan and Henk Slebos met more than forty years ago when they both studied metallurgy at Delft Technical University, they became friends and stayed in contact ever since.

Khan's professional career began in May 1972 at FDO ('Fysisch Dynamisch Onderzoekslaboratorium' or Physical Dynamic Research laboratory founded as in-house laboratory for Stork-Werkspoor in 1971) in Amsterdam. At that time FDO was the main subcontractor to UCN, the Dutch branch of uranium enrichment company Urenco. After suspicions around Khan's intentions arose, he was transferred to a different position within the company

in 1975 but suddenly left for Pakistan and resigned his post at FDO. Khan had apparently taken full advantage of the freedoms he enjoyed while working within the Dutch nuclear industry and returned to Pakistan armed with a wealth of knowledge, technology and contacts.

Khan soon became head of Pakistan's ultracentrifuge (UC) project, rivalling the plutonium route then pursued by the Pakistan Atomic Energy Commission and in his new function quickly set up a network of suppliers and intermediaries, mainly from Europe, to enable the swift development of the UC-project within Pakistan. Sooner than many expected, Pakistan was ready to enrich uranium to nuclear weapons grade.

After university Slebos worked in the Dutch Navy as a 'trouble shooter' for ship repairs for five years and was also involved in purchasing titanium tubes for submarine exhaust systems and doing research on underwater welding (1). The Navy job put him in contact with Explosive Metal Works Holland (EMWH), a specialised firm treating steel and other materials using explosives. He later secured a job with the firm and became commercial director around 1974. With EMWH, Slebos worked on the Kalkar fast breeder reactor (2) and for UCN. (Although building was completed in the mid 1980s, Kalkar was never used as such and the entire project was finally stopped in 1991. Today it is an amusement park...) Khan (at FDO) and Slebos were then able to develop a professionally relationship as both worked for UCN as subcontractors. They were able to meet at the 1975 Nucler fair in Basel and worked together researching the highly secret 4M-type UC (3). This was first revealed by Dutch radio programme 'Argos' in April after it obtained a copy of a secret June 1979 annex to a Dutch government investigation into A.Q. Khan and his activities in the Netherlands. The report and its annexes

were recently largely declassified.

The cooperation continued after Khan's return to Pakistan and in late 1976 - shortly after leaving EMWH - Slebos flew to Pakistan for the first time. As he recalled on a 2002 recording obtained by the Dutch daily *NRC Handelsblad*, "And there problems came up. You look at things purely as a boffin, both of us being metallurgists. I had a knack for aircraft construction, and had also been doing troubleshooting work for the Navy where you worked with all the kinds of materials (...). That is how my contact started and continued. At a certain moment business resulted from that. I delivered him (...) the whole lot, the whole range from electronics to the construction materials, all kinds of things that were not forbidden to deal in." (4)

That was partly true. Slebos knew what he was doing and willingly took risks, even exporting goods that required a licence without actually obtaining one. Part of his modus operandi was to use front companies in Europe, the Gulf States and Pakistan, as well as concealing parcel contents and final destinations. Moreover, Dutch export laws were in an embryonic stage at the time, especially on the nuclear side.

## **Unmasked**

Slebos was first caught illegally exporting a U.S.-made Tektronix oscilloscope from Schiphol airport on October 23, 1983. During the trial, it was revealed that Slebos had previously been warned by the export control authorities not to export the oscilloscope without a licence. Assuming that he would not get one, he decided to evade Dutch customs by sending the mainframe to Sjarjah in the United Arab Emirates, from where transport to Pakistan would be arranged.

The abstract of his testimony to the court that sentenced him in 1985 reads: "Early in 1977, I met Khan again in the

Netherlands (...) During a conversation he asked me whether I could deliver goods to Pakistan for a project he was working on. The project he was referring to was the establishment of a laboratory at which fuel would be enriched for a reactor in Karachi. From that time till today I have regularly acted as supplier of various goods for the Khan-project." (5)

An initial one-year prison term was nevertheless overruled by an appeals court in 1986 and reduced to a six-month suspended sentence and a fine of 20,000 guilders (around 9,000 Euro or US\$10,500). The court decided that the prosecution had not proven the intent for nuclear end-use and took into account that Slebos had no previous criminal record.

Slebos later told the makers of the Dutch documentary programme 'Zembla' that the people that helped Pakistan build its bomb, had all known each other and admitted to being in contact with "maybe even a thousand" companies across Europe that had supplied him with the required materials. Even when he was prosecuted for the oscilloscope, his business continued.

The earlier stories of Khan's proliferation activities were long since considered old news, that was at least until the story of his 'nuclear black market network' broke in the winter of 2003/2004. In January 2004, and after years of denial, the Dutch government then admitted that Urenco technology had been found in both Libya and Iran and by February, Khan had publicly admitted to selling nuclear technology and materials to both countries and North Korea. Henk Slebos' crucial involvement with Khan in the early development of Pakistan's nuclear weapons program was later revealed. Slebos admitted to having helped Pakistan build a bomb, but denied further involvement in proliferation activities (6).

#### Close call

Slebos may not have had proven criminal records but the oscilloscope case was no 'accident'. It recently entered the public domain that the Dutch internal intelligence service had

been watching Slebos from the late 1970s, when he had arranged a deal with Dutch company VDT for the export of over 6,000 UC rotor tubes to Pakistan. In the aftermath of the first revelations on AQ Khan's nuclear espionage (1979/1980), the case went to court. Although it was stated that the tubes had UC specifications, a loophole in the export laws that applied at the time (1984) saved the company from prosecution - it could not be proven that the tubes were *specifically developed* for ultracentrifuge purposes. Middleman Slebos escaped trial even though his involvement was made clear in a statement given to the internal security service, BVD, by his former boss at EMWH, who was also approached by Slebos for the order.

From the late 1980s to the late 1990s, Slebos managed to stay under the radar but shortly after Pakistan's 1998 nuclear tests he and his two companies Slebos Research BV and Bodmerhof BV were linked with intercepted exports to Pakistan.

Between February 1998 and February 2002, A.Q. Khan was known to have made mysterious journeys around Africa accompanied by high-ranking Pakistani nuclear officials and Henk Slebos on occasion. The London-based accountant Siddiqui recorded his memoirs of travel with Khan and friends in the Urdu language booklet "A short trip to Timbuktu" published in 2000. (7)

In September 2003 'Slebos Research' became a sponsor of ISAM, a conference organized by Khan's nuclear laboratory KRL. As more details on Khan's nuclear proliferation network became public in early 2004, a Pakistani government spokesman stated at a press conference that, among others, a Dutch businessman called "Hanks" had been involved. Soon after the Dutch press discovered that the Public Prosecutor was building a case against Slebos, resulting in this latest prosecution.

#### Ideology or greed

Despite denying all knowledge, it remains to be seen whether Slebos was actually aware of Khan's dealings with North Korea, Libya, Iran and possibly others. He did continue

dealing with Pakistan long after it had attained its nuclear status, which - according to Slebos - was his main goal. And if Slebos - as he also claims (9) - is both Khans' best friend and long time business partner, it seems strange that he would only have known about Pakistan's nuclear programme and not the other dealings.

Although he now portrays himself as a man driven by ideology - having helped Pakistan counterbalance India's nuclear power - in earlier statements he had admitted to being driven by financial motives. Either way one crucial question remains; how was Slebos, despite almost 30 years of known links to the Pakistani nuclear programme able to continue operating as a key supplier for Pakistan's nuclear programme. Much is still unknown about the role that the different intelligence services, export control authorities, ministers and high-level bureaucrats played with respect to both Khan and Slebos. This story may yet take another three decades to fully unravel.

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- (1) Jaco Alberts and Karel Knip, "De vriend van een atoomspion" (The friend of a nuclear spy), *NRC Handelsblad*, February 21 2004.
- (2) Eric van Staten, "Ideaal droomhuis" (Ideal dream house), *De Telegraaf*, August 20 2003; Alberts and Knip, February 21 2004.
- (3) Dutch radio programme 'Argos' on April 29 2005
- (4) Alberts and Knip, *NRC Handelsblad*, February 21 2004
- (5) District court of Alkmaar, July 2 1985.
- (6) From interview with Dutch TV documentary programme 'Zembla', November 7 2005.
- (7) Edward Harris and Ellen Knickmeyer, "Head of Pakistan's nuclear ring made repeated visits to uranium-rich Africa", AP, April 20 2004.
- (8) David Rohde and David E. Sanger, "Key Pakistani Is Said To Admit Atom Transfers", *New York Times*, February 2 2004.
- (9) 'Zembla', November 7 2005.

**Contact:** Frank Slijper, Campagne tegen Wapenhandel (Dutch Campaign against Arms Trade), PO Box 7007, 9701 JA Groningen, the Netherlands  
Tel: +31 50 3133247  
Mobile: +31 6 28504778  
E-mail: frank.slijper@hetnet.nl  
Web: www.stoparmstrade.org

# URANIUM MINING ISSUES: 2005 REVIEW

**The spot market price of uranium climbed from 20.70 to 36.25 US\$/lb U<sub>3</sub>O<sub>8</sub> (as of December 19) in 2005, a 70% increase and five times the record low of 7 US\$/lb U<sub>3</sub>O<sub>8</sub>. And, after a long period of decline, world production reached 40251 t U in 2004, a 13% increase over 2003.**

## **(640.5740) WISE Uranium Project -**

The increase in the price of uranium is driven by fears that the secondary resources and stock holdings (currently supplying nearly half the demand) may soon expire leaving a supply gap, even if demand remains unchanged. At the same time, several countries have announced plans for a massive expansion of nuclear power capacities.

The recovery of the uranium price has led to more companies entering the uranium business; the number of uranium mining and exploration companies listed on the WISE Uranium Project website doubled from 180 to 361 during the course of the year (after having already increased by nearly 50% the year before).

Most of these companies are restarting exploration efforts where work was halted some 20 years ago due to poor economics. It is, however, not yet clear whether the next uranium boom will really resemble the first with a large number of small underground mines working many dispersed low-grade deposits (particularly in the U.S.).

Kazakhstan is concentrating its efforts on boosting uranium production from in-situ leaching from the current 3719 t U (2004) to 16,000 t U in 2015.

BHP Billiton, the new owner of the Olympic Dam copper/uranium mine in South Australia, has also announced plans to increase production from the current 4000 t to 30,000 t U per year (three quarters of the current world production!).

It is not certain that the new uranium boom will be as welcome as the first mostly was. In countries, such as Sweden, opposition is already growing, even against exploration.

**As in 2004, WISE Uranium Project takes the opportunity to award its order of merit, this time in the following categories:**

*The 2005 Gold Award for Carelessness* goes to... the Australian Commonwealth authorities for securing insufficient decommissioning funds for ERA's Ranger mine trust fund.

*The 2005 Silver Award for Carelessness* goes to the Namibian authorities for accepting Paladin Resources' absolutely flawed Environmental Assessment for the proposed Langer Heinrich uranium mine.

*The 2005 Award for Forwardness* goes to Areva/Cogéma for postulating a "moral obligation" for uranium mining countries to take back spent fuel.

## **Newly discovered uranium deposits**

Just one discovery in 2005 has the potential for a new high-grade deposit, the first in about 20 years - Cogema Resources intersected 27.4% U<sub>3</sub>O<sub>8</sub> over 8.8 metres during drilling at its Shea Creek property in Saskatchewan. Other new uranium finds were reported from central India, six Nigerian states, and Zimbabwe, although no details were made available.

## **New uranium mining projects**

The Canadian Nuclear Safety Commission (CNSC) approved the mining license for the McClean Lake Sue E project in Saskatchewan, Canada, thereby introducing the new public service of withholding the Record of Proceedings from public disclosure. Approval was also given for the expansion of the JEB Mill at McClean Lake to receive and process ore from the new Cigar Lake mine. The licensing process for the proposed processing of uranium-rich solutions from Cigar Lake at the Rabbit Lake mill is still underway.

In the U.S., Cameco's subsidiary PRI filed a license application for its Reynolds Ranch in-situ leach (ISL) project in Wyoming. Plans were also announced for several idle uranium mining sites, such as the Sheep Mountain mines in Wyoming, the Tony

M Mine in Utah, and the Whirlwind Claim mine in Colorado, among others, to resume mining. Further, a license was requested for the reopening of the mothballed Shootaring Canyon uranium mill in Utah. The license for the Crownpoint ISL project in New Mexico is still on hold after NRC judges tightened the groundwater restoration standard.

Namibian authorities issued a mining license for Paladin Resources' Langer Heinrich uranium mine project - at breath-taking speed. Paladin released the related environmental assessment report *after* the mining license was obtained. An evaluation by external consultants later showed the report to be full of inconsistencies and serious flaws that should have stopped it being accepted by the Namibian authorities. For accepting the thoroughly flawed Environmental Assessment, the Namibian authorities clearly deserve the 2005 Silver Award for Carelessness. The Langer Heinrich groundbreaking ceremony was accompanied by protests from environmentalists and Paladin's next project, the Kayelekera uranium mine in Malawi, has already become the subject of serious environmental concerns raised by a local Human Rights organization.

Kazakhstan continued its efforts to expand the uranium production from in-situ leaching from the current 3719 t U (2004) to 16,000 t U in 2015. The Inkay ISL project received its first construction permit with the Munkuduk ISL project due to start uranium production in 2006 and the Korsan project in 2009.

In India, Uranium Corporation of India Ltd (UCIL) faces serious opposition everywhere it plans to develop new uranium mines. In Jharkhand, resident opponents kept the State Pollution Control Board from holding a hearing on the proposed Mohuldih uranium mine project. In Andhra-Pradesh, overwhelming opposition was voiced at

a public hearing against the new site proposed for the uranium processing plant for the Lambapur-Peddagattu project; a demonstration was also held in Nalgonda. In Meghalaya, activists temporarily sealed off the Domiasiat uranium mine project site.

Energy Resources of Australia (ERA) and Traditional Owners signed a long-term deal, obliging ERA (and its successors) to secure Mirarr consent prior to any future mining development of uranium deposits at Jabiluka.

Cogéma revived efforts to mine its Koongarra deposit in Kakadu National Park, after a five-year moratorium ended in April. The Northern Territory Government had blocked the Koongarra uranium mine, however, in August the Federal Government overruled the ban on new mines declaring the territory open for uranium business.

#### **Issues at operating uranium mines**

According to press reports, Areva/Cogéma will invest Euro 500-600 million (US\$ 600-720 million) in doubling uranium output from its mines by 2010 (from 6125 t U in 2004).

The Supreme Court of Canada upheld the license of the McClean Lake uranium mine in Saskatchewan quashed by a Federal Court at the request of local environmentalists. Cogema Resources was able to continue operation of the mine during that time, since it was granted stay and an Appeals Court had overruled the Federal Court decision in 2004.

In the U.S., the Colorado Department of Public Health and Environment (CDPHE) and residents continued their struggle with General Atomics' subsidiary Cotter Corp. on its Cañon City uranium mill in Colorado. Rejecting Cotter's appeal, a judge denied the company the right to dispose of 24,000 tons of contaminated soils from Maywood, New Jersey. This did not deter the company, however, from applying for the disposal of other contaminated soil (from the AMAX Research and Development site in Colorado) at its mill site. In other developments, CDPHE invited public comment on the planned remedial

action of the Old Ponds Area at the mill site, and cited Cotter for two contamination incidents at the mill. In November, Cotter Corp. announced the closure of six uranium mines and the lay off of most of its Cañon City mill workers due to poor economics.

In Argentina, a judge ordered a halt to the restart of the Sierra Pintada uranium mine at San Rafael, Mendoza province after several organizations, including the local Chamber of Commerce, had called for a cleanup of old uranium mining activities at the site before reopening.

In the Czech Republic, the lifetime of the country's last active uranium mine at Rozná could again be extended, given the recent rise in the uranium price.

In Niger, environmental issues at the uranium mines of Cogéma's subsidiaries at Arlit and Akouta received wide publicity. In April, two studies found several deficiencies and concluded that permissible dose rates may have been exceeded in certain cases. In response, Cogéma launched a health study at the sites but in November received a poor rating for environmental issues at its Niger uranium mines.

In Namibia, the life of the nearly depleted Rössing uranium mine will be extended to 2016. In June, elevated uranium concentrations were detected in groundwater (used for irrigation) downstream from the Rössing mine.

In South Africa, Aflease Gold and Uranium Resources Ltd is preparing to construct a processing plant at its Dominion Reefs mine where uranium is to be recovered as a by-product from gold mining from 2007.

In Afghanistan, illegal mining of uranium and gold reserves in Kohistan district of the northern Faryab province continues unabated.

In the Indian state of Jharkhand, an enquiry committee was set up to probe alleged illegal mining of uranium in the State.

At WMC's Olympic Dam

copper/uranium mine in South Australia, a state government taskforce was set up to investigate a huge spike in the number of birds killed at the mine's 400 ha tailings dam. In June, BHP Billiton became major shareholder of WMC and began preparing plans for an expansion from the current uranium output of 4000 t/a up to 30,000 t/a. Ironically, a large geothermal resource has been identified at Olympic Dam, with a potential for 1000 MW's of renewable geothermal power, which could be used to run the expanded mine.

Energy Resources of Australia's (ERA) Ranger mine in the Northern Territory will soon be depleted and is due to close in 2008. Processing of stockpiled ores will keep the mill operating until 2014, rather than 2011 as previously planned, due to the increasing uranium price allowing for the processing of lower cut-off grades. In June, ERA was fined AU\$150,000 (approx. US\$112,000) having plead guilty to charges related to water contamination in 2004.

In July, ERA disclosed that the Ranger mine closure is to cost AU\$176 million (US\$131 m), of which only AU\$65 million (US\$48 m) is covered by guarantee - AU\$41.4 million (US\$31 m) in a government-administered trust fund, and AU\$23.6 million (US\$18 m) through a bank guarantee. For evidently failing to secure sufficient decommissioning funds for ERA's Ranger mine, Australian Commonwealth authorities deserve the Gold Award for Carelessness. Should ERA go bankrupt, the taxpayer would have to fund the cleanup. Such fears were further fuelled, when on December 6, Cameco, Cogéma, and Japan Australia Uranium Resources Development Co Ltd. (JAURD) sold their combined 25% stake in ERA at a steep 27.6% discount. The former shareholders apparently lost confidence in the possible development of the Jabiluka deposit in the foreseeable future and, considering that the Ranger deposit will soon be depleted, cut their loses.

#### **Abandoned mines**

The Canadian Federal Government finally provided funding for the cleanup

of the former Port Radium mine (operated 1931-1960). A new report recommends immediate remediation.

The Governments of Canada and Saskatchewan announced a cost-share for the remediation of the Gunnar and Lorado uranium mines in Saskatchewan, active from the 1950s until the early 1960s.

The reclamation of the White King and Lucky Lass mines in Oregon, U.S., active from 1955 to 1959, began this summer. The reclamation will be paid for by the successors of the previous owner companies.

The U.S. Forest Service released a cleanup plan for the abandoned Juniper uranium mine in California.

Funding was awarded for the restoration of the Uravan mill and mine site in Colorado. The hazard cleanup at some abandoned uranium mines in Harding County in South Dakota could cost US\$20 million, according to the U.S. Forest Service. Beginning in the late 1940s, more than 200 uranium mines were dug in South Dakota.

The Japan Nuclear Cycle Development Institute (JNC) started paying a fine of 750,000 yen (US\$7,210) a day to local residents in the town of Yurihama on March 11, for its failure to meet a deadline to remove 3000 cubic metres of uranium-contaminated soil left from the former Ningyo-Toge uranium mine. In October, JNC shipped the most contaminated 290 cubic meters of the material to IUC's White Mesa uranium mill in Utah, USA, for recovery of the uranium and disposal of the remaining material - at cost of about 660 million yen (US\$6 million). The resulting cost of US\$20,700 per cubic metre of soil probably represents a new world record for the management costs of uranium mining waste. No decision has been made yet on the fate of the remaining 2700 cubic metres...

#### **Decommissioning issues**

The Canadian Nuclear Safety Commission (CNSC) issued a Waste Facility Operating Licence to Cameco Corporation for the Beaver Lodge uranium mine and mill site located in

Northern Saskatchewan. The decision was taken despite the relatively high incidence of deformities observed in fish in the vicinity.

CNSC also renewed Rio Algom's license for its Elliot Lake tailings in Ontario, withholding the Record of Proceedings.

In the U.S., relaxed groundwater standards were requested and/or approved for the following sites: Umetco's East Gas Hills uranium mill site (Wyoming), Pathfinder's Shirley Basin uranium tailings site (Wyoming), United Nuclear's Church Rock uranium mill tailings site (New Mexico), and at Homestake's Grants uranium mill tailings site (New Mexico). Western Nuclear withdrew its request for permission for the cessation of active groundwater restoration at its Split Rock uranium mill tailings site in Wyoming; the company had intended to supply residents in the area with an alternate potable water supply, rather than cleaning up the groundwater but apparently could not convince the NRC on this plan.

For the Atlas Moab uranium mill tailings pile in Utah, DOE released a Final Environmental Impact Statement stipulating a preferred alternative to relocating the tailings to Crescent Junction. On September 14, DOE signed the long-awaited historic decision to move the Moab tailings away from the banks of the Colorado River, where they threaten the drinking water supply to millions of downstream residents.

In Germany, a local environmental group raised concerns regarding the environmental impact of the flooding procedure currently in progress at Wismut's Thuringian underground mines and regarding the rather high permeability of the cover applied to certain waste rock piles. Meanwhile, Wismut is preparing the relocation of the conical landmark waste rock piles near Ronneburg, Thuringia, to a former open pit. Since this relocation will remove the most visible signs left from Wismut's vast uranium mining operations in Eastern Germany, the environmental group now calls for some memorial site

commemorating the consequences of Wismut's uranium mining.

In France, after six years of legal evasions, mining company Cogéma was forced to appear before the Criminal Court of Limoges for alleged pollution at its former uranium mine sites in the Limousin area. The Criminal Court, however, cleared Cogéma of the pollution charges.

In South Africa, groundwater contamination from abandoned gold/uranium mines raised increasing concern.

In Kazakhstan, the rising groundwater table in the Aktau area increases the hazard of contaminant dispersal from the Koshkar-Ata uranium mill tailings to the region and to the Caspian Sea. Scientists called for efforts to isolate the tailings. The reclamation of the closed Zharkent uranium mine is scheduled to start in 2006.

#### **Miners' and Residents' Health**

A Canadian report has concluded that scientific data collected could not show a definitive link between cancer rates in the community of Deline and the Port Radium mine. Local men were hired to carry sacks of uranium ore from the mine, which opened in 1929 and operated for decades. Cancer cases started occurring and the community became known as the "Village of Widows". But, the report says those employees' exposure levels were not high enough to cause cancer, contradicting widely held opinions.

In the U.S., a National Academy of Science committee recommended that a determination be made as to whether Cold War era residents of uranium mills should be eligible for radiation exposure compensation. So far, compensation has been applicable only for former uranium workers and downwinders of nuclear weapon tests.

In Spain, parliament demanded medical tests for former workers at the now closed Andújar uranium mill, after high cancer rates had been observed.

#### **Other Developments, Policy Issues**

On April 29, Navajo Nation President

Joseph Shirley Jr. signed the Diné Natural Resources Protection Act of 2005 outlawing uranium mining and processing on the Navajo reservation. The bill was passed by the Navajo Nation Council on April 19, in a 63-19 vote; it could, however, be overturned by U.S. federal legislation.

In China, uranium mine employee Sun Xiaodi disappeared at the end of April after reporting contamination from the Gansu No. 792 Uranium Mine in the Gannan Tibetan Autonomous Prefecture. The organization Human Rights in China (HRIC) fully supports the efforts of Sun Xiaodi's family and friends to ascertain his whereabouts and secure his release. HRIC urges the international community to press the Chinese authorities to conduct an in-depth investigation into Sun's allegations of corruption, severe human health impacts and environmental degradation at the Gansu No. 792 Uranium Mine.

Australia conducted an inquiry into the future role of its uranium industry. While the inquiry was still ongoing, Australia began formal negotiations on uranium exports to China. China refuses to commit to IAEA inspections of its nuclear power facilities as a condition of buying uranium from Australia, though. China even announced that it wants to explore for uranium in Australia. Meanwhile, Rössing became the first Western producer to export uranium to China (see above).

Uranium exporting countries are not alone in rethinking their role in a future uranium boom. There also appears to be an about-face in some areas of the (formerly?) ethical investment community; the Anglican Church's investment fund in Australia removed its ban on uranium mining shares.

So, while it seemed that morals are on a deplorable but inevitable decline in these days of a looming uranium boom, it was rather surprising to learn that

Areva/Cogéma, of all companies, is apparently attempting to uphold standards stating that uranium exporting countries have a "moral obligation" to take back spent fuel! Cogéma, the company that showed no scruples when it came to leaving behind a dangerous and damaging mess when it closed its uranium mines in Gabon (see 2004 Review). For this outrageous statement, Areva/Cogéma clearly deserves this year's "Forwardness of the Year Award".

While Cogéma's comment was meant for Australia, it was later adopted by Canada's Nuclear Waste Management Organization who said that the uranium mining province Saskatchewan has a "responsibility" to take back spent nuclear fuel.

The full review is available at <http://www.wise-uranium.org/>

Contact: WISE Uranium



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# NUKES AND THE CLIMATE CHANGE DEBATE

**At the first meeting of the Members of the Kyoto Protocol (MOP1) in Montreal at the beginning of December, the big decision taken was to start negotiations for a second climate treaty as a follow-up to the Kyoto Treaty, which expires in 2012.**

**(640.5741) WISE Amsterdam** - Among the observing NGOs and businesses was the low-key but unmistakable presence of the nuclear lobby, notably from International Atomic Energy Agency (IAEA) and European Nuclear Society (ENS).

Both bodies had organised side events at the Conference, and there they repeated the predictable tales about nuclear energy being a necessary part of the solution to climate change. Given the rise in fossil fuel prices, they claimed that there is a role for nuclear energy to play, if not as a permanent solution then as a solution for a transitional period - although considering that industry thinks 50 years is short-term, who knows how long they envisage this 'transition' to be. They boasted that public support for nuclear energy is growing fast and were opposed by the majority of the audience, most notably by young Finnish anti-nuclear activists who stressed that their government had acted against popular opinion when it decided to start the first new nuclear plant project in western Europe since the Chernobyl accident.

Despite sticking to its usual ridiculous arguments, the lobby did manage to come up with one new and rather hilarious argument in its own favour - that a nuclear reactor does not take much space! Possibly an argument suitable for use on the NIMBY groups fighting the expansion of onshore wind farms because turbines obscure the landscape...

More worrisome than the predictable presentations from the nuclear industry were the contributions of green activists promoting nuclear power, such as Greenpeace co-founder Patrick Moore and Gaia-theorist James Lovelock who featured in a documentary shown at the Conference. While accusing opponents of being anti-science and anti-technology, they claimed that the new generations of nuclear reactors are reliable and safe. Lovelock, when confronted with questions on radioactivity and waste, simply responded that of course there would be more cancers and accidents, but that this was acceptable because climate change is threatening the whole earth system. Both appeared equally blind to the fact that real sustainable solutions are available, can replace nuclear capacity in many instances when coupled with efficiency and that every penny invested in nuclear power instead of renewables is wasted by an industry without a future but that, with the collusion of governments and interest groups, will do and say anything to ensure its own survival. In the United States, for example, it is calculated that for the last 40 years, for every dollar spent on wind energy research, 30 dollars were spent on nuclear research.

These issues were discussed at a workshop organised by WISE at the Conference. Activists from different continents agreed there that is an urgent need for the anti nuclear

community to follow the climate debate more closely. Having succeeded in keeping nuclear out of the Kyoto Protocol by presenting a united front in 2001, we need to do more to stop the nuclear industry disguising itself as the solution for climate change as is reported on a horrifyingly regular basis in much of the world's media.

The general public on the whole seems to have forgotten our basic arguments about nuclear safety, waste and radiation and have largely become used to nuclear power as part of their reality. Lifetime extensions of aged reactors in countries worldwide are contributing to the feeling that 'it is as it is'. Moreover, there has not been any really major accidents for the media to focus on in 20 years (luckily), which contributes to the general public's view of nuclear as being 'safe' now. The recent IAEA/WHO report trivialising the effects of Chernobyl has not been placed under critical mainstream media review in any country, as far as we are aware. The report was accepted by the media because it originated from a body that should be trustworthy, the UN, and because the press release was a clever product of nuclear spin, well timed to precede the report and seemingly detailed enough in its four pages to make journalists deem reading the full report (at a whopping 600 plus pages) unnecessary. The arguments against the astronomical costs of nuclear energy are losing their value as oil prices continue to rise and increasingly, security of supply is used becoming the buzz phrase in the promotion of nuclear.

What we have to do is to borrow an old political phrase and go back to basics, repeat the arguments against nuclear power over and over again in easily accessible language and stress the potential of other solutions at every opportunity. We need to show that we are not just clinging to our beliefs for the sake of it and that we are aware and do understand that climate change is a real threat and deal with people's rightful concerns.

The nuclear industry is trying to discredit alternatives from renewable sources and we need to make it known that realistic scenario's do exist to change our whole energy production to solar, wind, small hydro and sustainable biomass before 2050. Although many people now perceive climate change to be a bigger problem than nuclear power, we must move the debate on from a choice between the lesser of two evils as it is currently being portrayed. We have the same solution for both evils and it is called sustainable energy.

**Source and contact:** WISE Amsterdam

# **CHERNOBYL 20 YEARS ON: NUCLEAR COSTS & ENERGY FUTURES**

## **CITY HALL, LONDON - 23 MARCH 2006**

### **8TH IRISH & UK LOCAL AUTHORITIES STANDING CONFERENCE ON NUCLEAR HAZARDS**

The conference will consider the safety and security issues around new nuclear construction; prospects for implementing policy for UK radioactive wastes; the vulnerability of nuclear sites on the Irish Sea coast to climate change impacts; and opportunities to meet energy needs and tackle climate change without recourse to nuclear energy.

For the first time the conference will link up with Chernobyl Children's Charities and leading environmental and energy campaigners for joint morning plenary presentations. In the afternoon each sector: local government; charities; and campaigners, will separate and hold their own meetings within City Hall.

#### **Conference Aims to:**

- Review the health and environmental consequences of the Chernobyl nuclear disaster and its continuing impact on the British Isles
- Report on voluntary action to mitigate health impacts
- Report on key developments in UK nuclear energy policy and waste management policy process and how to engage with them
- Report on innovative strategies to meet future energy needs with low environmental and health costs

This conference offers a unique opportunity to be thoroughly briefed about these key policy issues and about how to engage with them. Places are limited and early registration is recommended.

Contact Nuclear Policy and Information Unit / Nuclear Free Local Authorities Secretariat, tel. +44 (0) 161 234 3244, fax. +44 (0)161 234 3379, e-mail: [c.frisby@manchester.gov.uk](mailto:c.frisby@manchester.gov.uk), website: <http://www.nuclearpolicy.info>

#### **DRAFT PROGRAMME**

9.30-10.20 Registration, welcome and opening speeches

#### **10.20 Chernobyl's Legacy**

Chair: Cllr Darren Johnson, Member of the London Assembly

1. Rebecca Harms, MEP (provisional confirmation)
2. John Urquhart, Epidemiologist (confirmed)
3. Linda Walker, Chernobyl Children's Project UK (confirmed)

#### **Midday Innovative Energy Futures**

Chair: Cllr Michael O'Dowd, Louth County Council (confirmed)

1. Jean McSorley, Senior Nuclear Campaigner, Greenpeace UK (confirmed)
2. Antony Froggatt, Energy Analyst (confirmed)

#### **14.00 Sector Workshops**

1. Local Authorities, Committee Room 5
2. Chernobyl Charities, Committee Room 3
3. Environmental Groups, Committee Room 2

#### **17.00 Conference Close**

#### **Local Authorities Sector Workshop**

Committee Room 5, 14.00-17.00

Session themes:

- Nuclear Safety & Security
- Development Control & Accountability through the Planning Process
- Policy on UK Radioactive Waste Management
- Climate Change Impacts on the Irish Sea Coast
- Developing the UK & Irish Nuclear Free Local Authorities Network

# PSR REPORT ON DEPLETED URANIUM HEALTH ISSUES

**A recently published Physicians for Social Responsibility report on the health issues associated with depleted uranium surprisingly failed to draw on recent literature, studies and accepted knowledge on the issue. In fact, the number of scientific health studies on DU poisoning included were somewhat inadequate.**

**(640.5742) Laka Foundation** - It is not known why the authors of the PSR report chose to focus on information retrieved from outdated depleted uranium (DU) health literature reports by the RAND Corporation but ignored more recent empirical studies like, for example, that of the Armed Forces Radiobiology Research Institute (AFRRI).

Since around 1998 there has been a growing body of evidence from in vitro and in vivo studies indicating that DU oxides may be genotoxic, mutagenic, and tumorigenic. A significant amount of this work is currently being conducted at the AFRRI under the direction of Dr. Alexandra Miller. She and her colleagues demonstrated for the first time that internalised DU oxides could result in "a significant enhancement of urinary mutagenicity", that they can transform human cells into cells capable of producing cancerous tumours when implanted into mice with suppressed immune systems. They also found that DU was capable of inducing DNA damage in the absence of significant radioactive decay. Other experiments show that alpha particle radiation is causing the cancerous mutation followed by a build up of damage from either or both the heavy metal and radiation properties of uranium aiding the spread of the cancer, or vice versa (1).

That the authors should describe the RAND Corporation and the World Health Organisation (WHO) as 'independent' organisations is both surprising and incomprehensible. The RAND Corporation is an American think tank first formed to offer research and analysis to the U.S. military (2). The Centre for Media and Democracy has said, "Two-thirds of RAND's research involves national security issues. This is divided into Project Air Force, the Arroyo Centre (serving the needs of the Army), and the National Defense Research Institute (providing research

and analysis for the Office of the Secretary of Defense, the Joint Staff, and the defense agencies)." (3) Asking the RAND Corporation to study the health issues of DU oxide dust is akin to asking the CIA to investigate the torture of prisoners captured in the war against terrorism.

Also the WHO can be hardly described as an independent body on ionising radiation and health issues. In the 1959 agreement signed between the IAEA and WHO, both parties recognized that the IAEA has the primary responsibility for encouraging, assisting and coordinating research on atomic energy throughout the world, without prejudice to the right of WHO to concern itself with promoting, developing, assisting and coordinating international health work, including research in all its aspects. This clearly suggests that the promotional bureau of nuclear energy (IAEA) considers itself to be the watchdog on information distributed to the public regarding the health effects of radiation, while the WHO contributes to medical care and public health assistance (4).

The superficial health studies by RAND and WHO help to perpetuate the myth, accepted by the PSR report authors, that the health impacts of DU oxide dust are comparable to those of naturally occurring uranium. Dr. Keith Baverstock and other scientists researching DU health impacts have previously observed that fine particles of DU oxide have no natural analogues. Therefore the inhalation of DU oxide dust particles, and the reaction caused by that, cannot be compared with natural uranium. In contrast with natural forms, DU oxide dust particles are highly concentrated, mainly insoluble or sparingly soluble and can be lodged in the lungs for many years. Besides this notion, the WHO simply ignores the potential risk routes in addition to radiotoxicity by direct irradiation, namely, chemical genotoxicity, synergy

between radiation and chemical toxicities and a bystander route. The evidence for these three routes is growing (5).

From an independent organisation of physicians, we could have expected a more thorough, critical and up to date overview on scientific DU health studies. Unfortunately, this report did not meet with this particular reader's expectations.

*The Physicians for Social Responsibility report "DU: Health and Public Health Issues Arising From The Use Of Depleted Uranium Munitions" (October 2005) by Kimberly Bernard, Martin Butcher, Roy Farrel MD, Robert M. Gould MD, Michael McAlly MD, is available at [http://www.psr.org/documents/psr\\_doc\\_0/program\\_4/DU\\_Report.pdf](http://www.psr.org/documents/psr_doc_0/program_4/DU_Report.pdf)*

## References:

- (1) For a full review of Alexandra Miller's publications see page 59 of the IEER publication "Costs and Risks of Management and Disposal of Depleted Uranium from the National Enrichment Facility Proposed to be built in Lea County New Mexico by LES".  
<http://www.ieer.org/reports/du/LESrptfeb05.pdf>
- (2) [http://en.wikipedia.org/wiki/RAND\\_Corporation](http://en.wikipedia.org/wiki/RAND_Corporation)
- (3) [http://www.sourcewatch.org/index.php?title=RAND\\_Corporation](http://www.sourcewatch.org/index.php?title=RAND_Corporation)
- (4) *WISE News Communique*, 521.5111 "Conflict of interest between IAEA and WHO", November 19, 1999
- (5) Presentation by Dr. Keith Baverstock on DU toxicity and politics given at the ICBUW conference at the European Parliament in Brussels, June 23 2005.  
<http://www.bandedpleteduranium.org/modules.php?name=News&file=article&sid=180>

**Contact:** Henk van der Keur, LAKA Foundation, Ketelhuisplein 43, 1054 RD Amsterdam, the Netherlands  
Tel: +31 20 6168294  
Fax: +31 20 6892179  
E-mail: [laka@antenna.nl](mailto:laka@antenna.nl)  
Web: [www.laka.org](http://www.laka.org)

# SIGN THE PETITION!

The campaign to gather 1 million signatures against nuclear power in Europe has gained momentum on all fronts. There is a great need to restate our arguments against the nuclear case, and demonstrate the viability of alternatives.

The continued efforts of the campaign initiators, and new commitments made by Friends of the Earth Europe and FoE groups such as Global 2000 and BUND, have given the campaign a real boost - and a full-time coordinator based at WISE Amsterdam. A dedicated website, [www.million-against-nuclear.net](http://www.million-against-nuclear.net), will be online by January 9, 2006. Initially, in four languages (French, German, Spanish and English) but more will follow shortly.

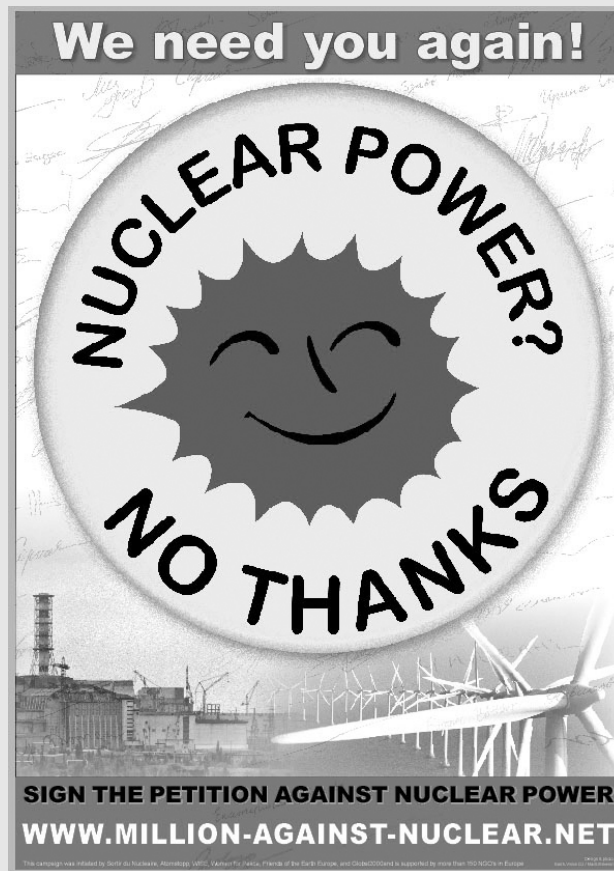
On March 11 2006, groups from all over Europe will hold a Europe-wide 1 Million Petition Kick-Off Day, with actions and activities in as many European countries as possible. There will be more action in June, a Summer Estafette Tour, and a final international action after October 1 2006, the end date for handing in signatures.

Please help us make this a campaign success! For more information contact [wiseamster@antenna.nl](mailto:wiseamster@antenna.nl) (and soon [info@million-against-nuclear.net](mailto:info@million-against-nuclear.net)).

There are a million things you can do to help:

- If you have signed already, then ask your friends and family to sign also
- Order or download petitions, and distribute amongst your colleagues and neighbours - don't be shy to be anti-nuclear!
- Get your group of friends together and do an action or circulate leaflets on March 11
- Send out emails directing people to the petition on the website

We need you - again! Join us by adding your name to the list of people who want nuclear power out of Europe for good.



**MPs to rebel against Blair's nuclear plans.** Group of Labour Party MPs, reportedly backed by environment minister Elliot Morley, are organizing a parliamentary rebellion against Tony Blair's plans for new nuclear plants in the UK. The group are publishing their own proposals in an effort to direct policy, arguing that the nuclear industry would need to be massively subsidised to make it viable. The manifesto being drafted sets out the case for continued investment in renewable energy instead of "a dangerous leap with nuclear". One section will also point out that uranium provides no greater long-term security of supply. The MPs want the government to come clean about the real costs of nuclear power to consumers and want a parliamentary vote to be taken on any decision on new nuclear. Alan Whitehead, a former minister, said "If there was a free market in energy, i.e. no assistance for new nuclear build, no long term promise of a guaranteed market and no minimum price for nuclear, no one would build a new nuclear power station. Nuclear is not carbon-free, nor is it renewable".

*The Guardian, December 22, 2005*

**EU Commission's nuclear disagreement.** The nuclear package containing three proposals on nuclear research, decommissioning funds and non-proliferation that was to have been discussed by the European Commission this month has been dropped following a row over how financial resources should be allocated. The package proposed by the energy department of the Commission would have set up a joint undertaking between it and member states on research into advanced waste management options. But it is reported that the research department had other ideas, preferring for the money to be spent on advancing nuclear fusion instead. Commission spokesperson Ferran Tarradellas said that discussions are still on going with the research department and that proposals were expected to be revealed "early next year". In 2003, two directives on nuclear safety and waste were withdrawn after facing resistance from governments protesting at being told how to manage decommissioning funds. Whatever the new proposal contains, it will likely still meet with disapproval from some governments opposed to what they see as EU interference. However, given that in some countries - France and Germany for example - utilities are able to spend decommissioning funds on anything other than the task they were set up to fund, it would seem that the only way to ensure that there are sufficient funds for the task is if the Commission stands firm.

*European Voice, December 21, 2005*

**Investors pulling out of Skull Valley (U.S.).** Entergy Corporation, one of Private Fuel Storage's (PFS) eight original investors will hold future investments from the proposed nuclear waste storage site at the Goshute's Skull Valley reservation in Utah. It became the fourth PFS investor to change the terms of its financial support in the last month - two others, Southern Company and Florida Power and Light have pulled out completely. The largest investor, Xcel, has also put a 'hold' on its funding. In a letter, Curt Herbert Jr., Executive Vice President at Entergy said "We recognize the political obstacles to finding solutions to management of spent fuel from nuclear plants and believe the Utah facility is probably not the best solution to be pursued at this time". Happy news for the people of Skull Valley no doubt.

*Deseret Morning News, December 21, 2005; NEI News, December 14, 2005*

**Indo-US deal on rocky ground.** In the face of growing controversy over the nuclear cooperation deal agreed between George W. Bush and Prime Minister Manmohan Singh in July, India has rejected demands that it curb its nuclear weapons programme.

The Indian ambassador to Washington, Ronen Sen, in November warned that any moves by the U.S. Congress to change the terms of the deal could undermine it completely. The agreement would grant India access to nuclear technology previously denied to it because it have illegally developed and tested nuclear weapons. Many prominent American critics have called for the deal to be tightening us because it undermines non-proliferation. India committed to separate its military and civilian nuclear facilities to ensure that U.S. cooperation with the civilian part does not also benefit the weapons programme but New Delhi is not believed to have make much progress in fulfilling this requirement. However, Ambassador Sen insists that India will make good on its promise to reveal the nature of its facilities and to allow IAEA inspections of civilian plants for the first time as well as signing the safeguards agreement. In the past, a Canadian supplied Cirus plant intended for peaceful uses ended up being diverted for military purposes and some U.S. critics fear that the same could happen again.

Two U.S. lawmakers have proposed a resolution expressing congressional disapproval of the agreement. Democratic Rep Edward Markey of Massachusetts, who introduced the resolution with Republican Rep Fred Upton of Michigan, said, "Supplying nuclear fuel to countries that are not party to the Nuclear Non-proliferation Treaty derails the delicate balance that has been established between nuclear nations and limits our capacity to insist that other nations follow that important non-proliferation policy". "We cannot break the nuclear rules (...) and demand everyone else play by them."

*Reuters, December 21 and November 22, 2005; AFP, December 7 2005*

**Chinese nuclear deal collapses.** The US\$ 8billion contract to build four nuclear reactors in China is off because off the massive costs involved. Westinghouse, Areva and Atomstroiexport had been competing for the lucrative contract to build the reactors but the Chinese have decided that although they only planned to import the arts of the plants that could not be produced domestically, the prices offered by the bidders were too unreasonable to consider. The Chinese government has said that new

improved bids in terms of price and the transfer of nuclear technology would have to be offered before it would reconsider.  
**Reuters, December 20, 2005**

**Radiation release in Chechnya.** High radiation levels have been detected at an abandoned factory in the Russian Republic of Chechnya. Russian state television reported that one storage facility at the plant had recorded levels of radioactivity 58,000 times higher than normal levels - half of what was released at Chernobyl - and could have serious impacts on the health of local populations. The discovery was reportedly made by a group of looters and prosecutors in Chechnya have now launched a criminal investigation. According to prosecutors, the radioactive materials have been identified as Cobalt-60, an isotope of cobalt used in food processing and by hospitals. It is also said to be one of the most likely elements to be used in the manufacturing of "dirty bombs".

**ISN Security Watch, December 18 2005; Aljazeera, December 17, 2005; BBC News, December 16, 2005**

**Earthlife Africa loses Eskom court case.** Earthlife Africa's (ELA) application for access to Eskom board minutes under South Africa's Access to Information Act were dismissed by a Cape Town court. ELA had initiated the case in an effort to force Eskom to reveal why it had failed to provide adequate information on the health impacts and economics of the PBMR project. (See also *WISE/NIRS Nuclear Monitor* 639.5737 "South Africa's PBMR nightmare continues") The group were also ordered to pay all court costs. The judgement came as a huge blow to the organization but it will consider the full implications before making a decision on an appeal.

**ELA press release, December 15, 2005**

**IAEA chief calls for disarmament.** During his Nobel Peace Prize acceptance speech, Mohamed ElBaradei said "If we hope to escape self-destruction, then nuclear weapons have no place in our collective conscience, and no role on our security." ElBaradei appealed to nuclear weapons states to reduce the strategic role given to nuclear weapons and said efforts towards disarmament must be accelerated. He also suggested that world regard nuclear weapons as taboo as slavery or genocide. "Imagine that the only nuclear weapons remaining are relics in our museums. Imagine the legacy we could leave our children," he said. Imagine indeed... We hope this means that the UN agency will now concentrate its efforts on disarmament and reduce the time it spends on promoting nuclear power.

**The Independent and AP, December 12, 2005; Sunday Herald (UK), December 11, 2005**

**Global IAEA poll.** An 18-country IAEA sponsored survey of around 18,000 people from all regions was conducted by Globescan Inc. between May and August and has found that six out of ten people are against the construction of new nuclear plants - unfortunately, six out of ten also believe that existing plants should continue to be used. Still, it does suggest that despite the massive PR efforts of governments and the nuclear industry, the public is still not convinced by the arguments for new nuclear power. The survey also revealed that 46% did not believe IAEA inspections effective in monitoring countries' nuclear programmes and that 54% believe that the risk of nuclear terrorism is high because of insufficient protection measures.

**IAEA press release, December 17, 2005**

**Britain accused of Israeli nukes 'cover-up'.** Following an August broadcast of the BBC's Newsnight programme - based on documents found in the British National Archive - that revealed Britain had sold heavy water to Israel more than 40 years ago, the UK is being accused of attempting to hide its role in the development of Israel's nuclear weapons programme. Heavy water is a key element in plutonium production and shipments bought by Britain from Norway were sold back to Noratom, a Norwegian state firm and then resold to Israel. UK authorities were apparently aware that the 20 tons of heavy water was destined for Israel - Israeli ships actually collected it directly from a British port.

The Arab League requested that the IAEA investigate the allegations but UK Foreign Office minister, Kim Howells denied the UK's involvement in a letter to the IAEA sent to all member governments. MPs are now calling for an investigation into the veracity of Britain's response, claiming that Norway is being used as a smokescreen.

A 1958 letter from the UK Atomic Energy Authority to foreign office official Donald Cape said "it could be argued that the Israeli's will receive the heavy water by reason of our reselling it to Noratom; that therefore we are parties to the supply to Israel". In addition, the contract between Israel and Noratom obtained by Newsnight stated that Norway's responsibility would be "limited" to that of "consultant", taking a commission of two percent on the four million dollar deal. Cape has since claimed that ministers were not informed of the sale because Israel was not suspected of trying to develop weapons. However, other confidential documents obtained by Newsnight under the Freedom of Information Act showed that the Foreign Office knew that Israel had tried to buy uranium from South Africa. One letter quoted CIA reports from 1957 and 1958 that said "The Israelis must be expected to try and establish a nuclear weapons programme as soon as the means were available to them". The author of these letters? Donald Cape. Although other documents accepted that Israel wanted an independent supply of plutonium in order to make weapons, the Foreign Office failed to impose any restrictions on how the heavy water was used. Cape said it would be "over zealous" to impose safeguards and agreed to keep the deal secret from the U.S.

**BBC News, December 9, 2005**

**Korea in nuclear deal with Indonesia.** Korea Electric Power Corp (KEPCO) has entered into an agreement with PT Perusahaan Umum Listrik Negera (PLN), an Indonesian state-owned power company, to help complete a yearlong feasibility study on building the country's first nuclear power plant. Under the memorandum of understanding, KEPCO and its affiliate Korea Hydro & Nuclear Power Co. will work together with PLN on a business plan for the construction. Once the proposal is in place, Indonesia will open an international tender process

*The Korea Herald, December 14, 2005; Asia Times, December 15, 2005*

## WISE AMSTERDAM/NIRS

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**Editorial team:** Tinu Otoki and Peer de Rijk (WISE Amsterdam), Michael Mariotte (NIRS).

With **contributions** from Campagne tegen Wapenhandel, Laka Foundation, WISE Uranium Project.

**The next issue** (641) will be mailed out on January 27, 2006.

All of us at WISE and NIRS would like to wish all our colleagues and readers the very best for the holiday season and a happy, peaceful and successful 2006!

## WISE/NIRS offices and relays

### WISE Amsterdam

P.O. Box 59636  
1040 LC Amsterdam  
The Netherlands  
Tel: +31 20 612 6368  
Fax: +31 20 689 2179  
Email: wiseamster@antenna.nl  
Web: www.antenna.nl/wise

### NIRS

1424 16th Street NW, #404  
Washington, DC 20036  
USA  
Tel: +1 202 328 0002  
Fax: +1 202 462 2183  
Email: nirsnet@nirs.org  
Web: www.nirs.org

### NIRS Southeast

P.O. Box 7586  
Asheville, NC 28802  
USA  
Tel: +1 828 675 1792  
Email: nirs@main.nc.us

### WISE Argentina

c/o Taller Ecologista  
CC 441  
2000 Rosario  
Argentina  
Email: wiseros@ciudad.com.ar  
Web: www.taller.org.ar

### WISE Austria

c/o Plattform gegen Atomgefahr  
Mathilde Halla  
Landstrasse 31  
4020 Linz  
Austria  
Tel: +43 732 774275; +43 664 2416806  
Fax: +43 732 785602

Email: post@atomstopp.at  
Web: www.atomstopp.com

### WISE Czech Republic

c/o Jan Beranek  
Chytalky 24  
594 55 Dolni Loucky  
Czech Republic  
Tel: +420 604 207305  
Email: wisebrno@ecn.cz  
Web: www.wisebrno.cz

### WISE India

c/o SAC CER  
42/27 Esankai Mani Veethy  
Prakkai Road Jn.  
Nagercoil 629 002, Tamil Nadu  
India  
Tel: +91 4652 240657 / 253295  
Email: drspudayakumar@yahoo.com;  
spuk@vsnl.net

### WISE Japan

P.O. Box 1, Konan Post Office  
Hiroshima City 739-1491  
Japan

### WISE Russia

P.O. Box 1477  
236000 Kaliningrad  
Russia  
Tel/fax: +7 95 2784642  
Email: ecodefense@online.ru  
Web: www.antiatom.ru

### WISE Slovakia

c/o SZOPK Sirius  
Katarina Bartovicova  
Godrova 3/b  
811 06 Bratislava  
Slovak Republic  
Tel: +421 905 935353

Email: wise@wise.sk  
Web: www.wise.sk

### WISE South Africa

c/o Earthlife Africa Cape Town  
Liz Mc Daid  
P.O. Box 176  
Observatory, 7935  
Cape Town  
Tel: +27-21-683-5182  
Email: liziwe@mweb.co.za  
Web: www.earthlife-ct.org.za

### WISE Sweden

c/o FMKK  
Barnängsgatan 23  
116 41 Stockholm  
Sweden  
Tel: +46 8 84 1490  
Fax: +46 8 84 5181  
Email: info@folkkampanjen.se  
Web: www.folkkampanjen.se  
c/o FMKK

### WISE Ukraine

P.O. Box 73  
Rivne-33023  
Ukraine  
Tel/fax: +380 362 237024  
Email: ecoclub@ukrwest.net  
Web: www.atominfo.org.ua

### WISE Uranium

Peter Diehl  
Am Schwedenteich 4  
01477 Arnsdorf  
Germany  
Tel: +49 35200 20737  
Email: uranium@t-online.de  
Web: www.wise-uranium.org

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Nuclear Information and Resource Service  
1424 16th Street NW, #404  
Washington, DC 20036