

NUCLEAR MONITOR

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U.S. RADIATION PANEL: NO RADIATION DOSE SAFE

A panel from the U.S. National Academy of Sciences (NAS) charged to investigate the dangers of low-energy, low-dose ionizing radiation has concluded, “that it is unlikely that a threshold exists for the induction of cancers... Further, there are extensive data on radiation-induced transmissible mutations in mice and other organisms. There is therefore no reason to believe that humans would be immune to this sort of harm.”

(632.5701) NIRS – In addition to this, the Biological Effects of Ionizing Radiation Report VII (BEIR VII) also made the following conclusions:

- That background radiation, excluding radon, is responsible for 1 cancer incidence in 100 of us. That equals 60 billion people worldwide.
- That the risk from exposure to radiation allowed at the regulatory limit would also induce approximately one cancer in 100 members of the public exposed over a 70-year lifetime. For workers the allowed risk is 1 in 4 at the allowable limits over a 50 year occupational life.
- That the risk of getting cancer is about 35% higher than current official risk figures used in the United States predict.
- That x-rays may be 2-3 times more dangerous than other forms of radiation, meaning that CT scans

would generate about 1 cancer per 300-400 procedures.

The panel was given its charge in 1999 and in June of that year, over 120 groups and individuals signed a letter to the Academies voicing concern about the composition of the BEIR VII committee.

The letter warned that the composition of the panel was unbalanced and, in fact, contained many individuals who had prejudged the issue of radiation and health to conclude that radiation was less damaging than current regulatory assumptions stated. Many of these individuals were either employed by the nuclear industry in some capacity or had loudly proclaimed their views.

None of the panel members had advocated making radiation standards

more protective and NAS had failed to invite any individuals who had been recommended by citizens' groups to participate up to that point. Because of this imbalance, the letter warned of potential Federal Advisory Committee Act (FACA) violations committed by the Academies.

Some of the more ardent and publicly pro-nuclear individuals were removed from the panel, but many individuals who felt low doses were less harmful, and that a threshold was possible, remained ensuring that the panel was still unbalanced. Even with this questionable panel composition, the committee could not ignore the current body of scientific studies that are now recognizing harmful and hitherto unpredicted effects at very low doses of radiation.

Citizens groups reminded the panel of these study results and presented persistent, relevant but yet unanswered questions regarding environmental, human, animal health and low-dose radiation exposure.

The panel report falls short in two key areas: First, since there is no safe dose, why should we allow any exposure at all except in cases of individual consent? To allow such exposures dooms a certain number of people to disease, a number of people much higher than allowed for other pollutants. The panel concludes that this one cancer case will hardly be

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noticed in a sea of "normal" cancer cases.

Which brings us to the second flaw: When pressed, the panel admitted that synergistic radiation effects are barely studied in scientific literature. Therefore our knowledge about how dioxin, cigarette smoke (or other poisons) and radiation interact in the

body, are woefully lacking. How, then do we really determine which cancers radiation *helps* to cause as opposed to the ones caused *solely* by radiation? In an increasingly polluted world, this becomes a necessary question.

For a copy of the full BEIR VII report online, visit <http://books.nap.edu/catalog/11340.html>, or see 4-page

summary at <http://www.nap.edu/reportbrief/11340/11340rb.pdf>

Thanks to Daniel Hirsch, Committee to Bridge the Gap, for providing information used in this article.

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G8 FAILS TO LEAD ON CLIMATE CHANGE

The leaders of the industrialized world have again met and shunned an opportunity to take the action desperately needed to put mankind on the path to slowing down the catastrophic effects of climate change. And this at a time when the issue was said to top the agenda. Instead they appear to be laying the ground for the rehabilitation of the bankrupt and irrelevant nuclear industry.

(632.5702) **WISE Amsterdam** - The G8 leaders claim to have made significant inroads where the issue of poverty is concerned by relieving some of the world's poorest countries of 'debts' while simultaneously failing to take action on climate change, the impact of which is already keenly felt in many developing countries. That these ostensibly intelligent men should be unable to appreciate the link between extreme poverty and climate change seems unimaginable but appears to be the case.

These eight not-so-wise men have refused to grasp the true urgency of the situation, failed to set any targets and plan to take no action – except to agree to another meeting at another plush resort. The text released from the G8 even goes as far as to name nuclear energy as a "clean energy technology".

For the past year, and especially over the last few months, we have been bombarded on an almost daily basis with spin about how nuclear energy will save us from global. We are led to believe that nuclear power does negligible harm to the environment and that our governments are reluctantly coming to the realization that new nuclear capacity will be required on a large scale globally because it is the only energy source 'big' enough to tackle the humungous challenges global posed by climate change.

The false luster of nuclear power rubbed off in the West following accidents at TMI (Harrisburg, USA) and Chernobyl. And because oil prices were low and the economics of nuclear were poor, many western governments led us to believe that they had seen the light and that we no longer needed to worry about new nuclear power plants. Some even promised to phase out nuclear power completely but now appear to be backing away from those pledges.

Thus far new nuclear has been largely restricted to Asian countries with fast developing industries and large populations demanding and consuming more energy.

American and European nuclear companies, on skid row for years, are now able to compete for new business in China, South Korea, and Taiwan etc. We are told of the amazing new super duper 'next generation' reactor designs

that are "safe", although neither tried nor tested. Finland and France are bidding to become the first western countries over a decade to build new nuclear power plants and others are reviewing the option, reportedly in order to meet Kyoto commitments.

Oil prices are rocketing and governments, jittery because most of the worlds dwindling oil reserves are held in politically unstable or unfriendly countries, are looking for a way out and view the nuclear route as it. Some noted 'environmentalists' have called on the anti-nuclear community to put aside its better judgment and support new nuclear to combat climate change.

Yet in the midst of all this highly vocal support for nuclear, several reports refuting these claims have been released. According to researchers at the Rocky Mountain Institute, an independent and nonpartisan nonprofit organization, both industry and official data shows that small-scale cogeneration and renewable energy producers are already leading nuclear in the global power market and are growing rapidly.

By the end of 2004 these 'tiny, insignificant and uncompetitive' decentralized competitors installed 12% more capacity globally than nuclear and will, by the end of 2005, have matched it in electricity output and should, by 2010, have exceeded nuclear output by 43%. Manufacturers

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The next issue (633) will be mailed out on 2 September 2005.

25 YEARS AGO

What happened 25 years ago? We go back to news from our 1980 WISE Bulletin, comparing anti-nuclear news then and now.

Then

In WISE Bulletin vol. 2 nr. 3 we wrote about the referendum in Sweden: "The Swedish experience is showing how dangerous a referendum can be, when the pro-nuclear forces decide to use it as a political tool." The referendum offered three choices, to complete the reactor program by building 6 more reactors, to build 6 more reactors but phase out nuclear power in a reasonable way, or to stop nuclear power in 10 years and increase alternative energy research and development and implementation.

The results of the referendum were: 19% for option 1, 39% for option 2 and 39% for option 3. There was no clear winner, 78% of the voters wanted to end nuclear energy, but 58% also wanted to build 6 more reactors. The government decided first to complete the reactor program and afterwards to phase out nuclear power.

Now

Since then only 2 of the 12 reactors have closed and it is not known when the remaining 10 will follow. Half of the energy produced at the Barseback 2 reactor (closed on 1 June 2005) is to be replaced by a new wind park, which will be ready in 2010. However, rumors exist of a Euro 1.65 billion (US\$1.99 billion) modernisation programme to increase the generation capacity of 7 nuclear power reactors to replace the other 50% of energy from Barseback 2.

But the fight is not over yet. Even if it is decided that the nuclear power plants will close, no timetable has been set for this. The decision on full phase out will be partly based on whether renewable sources and energy conservation measures can fully replace the nuclear capacity. But public opinion will also have an impact and in Sweden the public are showing less aversion to nuclear power nowadays because of the false claims that it will help with global warming, and despite there still being no solution to nuclear waste.

<http://www.ecology.at/nni/country.php?country=Sweden>

<http://news.bbc.co.uk/1/hi/world/europe/4595631.stm>

<http://news.bbc.co.uk/1/hi/sci/tech/4597589.stm>

of renewable power equipment earned ten times as much in 2004 as nuclear plants. So if cold, hard data proves that efficiency and renewable sources can produce as much energy as nuclear, are cheaper, make more money, produce no dangerous wastes and emit less CO₂, which they do given that the nuclear fuel cycle is not emissions-free as the hype claims, then why is any government still advocating nuclear? That nuclear power provides countries with materials (much of the world's uranium resources are held in friendly nations like Canada and Australia) required to create nuclear weapons is probably just a lucky coincidence...

Uranium mining companies repeatedly announce new explorations, are expanding production at existing mines to take advantage of high prices and tell us that there is enough uranium unexploited to meet the demand for the thousands of new nuclear plants that would be needed to take over capacity from fossil fuels but why go to the trouble and expense, not to

mention the catastrophic environmental legacy of uranium exploration?

Despite the flawed economics of the nuclear industry, the prohibitory construction costs and the lack of willing private investors, governments still insist on ploughing public funds into flogging this very dead horse. We know that nuclear has been afforded an unfair advantage for decades, that the actual costs of new build always far exceed projected costs, that the nuclear industry has never operated in a truly free market and that the true costs of decommissioning can never be known in advance but none of this seems to matter.

The British think-tank, New Economics Foundation recently stated that the costs of new nuclear have been underestimated by a factor of three and that it should not be promoted as the answer to climate change but governments refuse to listen – instead preferring to trust the judgment of interested parties.

The clear lack of political will and gumption shown by the G8 leaders is appalling and leaves us wondering how many times the case must be proven before action is taken. So what if the Bush administration does not believe that climate change is actually occurring? If they still believe in the tooth fairy, should we also? If the State of California, the world's fifth largest economy, and the U.S. Conference of Mayors are showing willing to act on emissions and meet Kyoto targets, why should we care what the Bush administration says?

The next meeting of the Conference of the Parties to the Climate Change Convention (COP 11) and the first meeting of Parties to the Kyoto Protocol will be held in Montréal, Canada in November. It remains to be seen what role nuclear will play in these negotiations but we will be watching. Decades of anti-nuclear campaigning have so far failed to put an end to the nuclear pestilence so we must now redouble efforts to ensure that world leaders do not push us

further down the road to nuclear destruction under the guise of 'solving global warming'. Nuclear is neither clean nor clear and we should not be tricked into believing otherwise.

References: European Commission press releases, 22 June 2005; Rocky Mountain Institute website (<http://www.rmi.org/sitepages/pid1154.php>), BBC News, 29 June 2005; Tomapaine.com, 5 July 20005 (http://www.tomapaine.com/articles/20050705/bushs_nuclear_nonsense.php); *Financial Times*, 13 July 2005

Contact: WISE Amsterdam

6th RUSSIAN ANTI-NUCLEAR CAMP

Ecodefense (WISE Russia) invites activists from environmental and other non-governmental groups to **participate in the 6th Russian Anti-nuclear Camp from August 4-11 near Ekaterinburg**, Russia's third largest city.

Ekaterinburg is surrounded by several dangerous nuclear facilities: Beloyarsk nuclear plant with the country's only fast-breeder reactor, Novouralsk uranium waste re-enrichment facility and the famous "Mayak" nuclear reprocessing facility, which is less than 200 km away.

The camp's program includes seminars focusing on the import of

nuclear waste to Russia, nuclear transportation, access to information on nuclear activities and training program on resistance and non-violent protests etc. A strategy session for environmental groups to develop various anti-nuclear activities is also planned and protests may be organized in cities located close to the campsite.

To participate contact organizers to register, volunteer or make a donation.

Ecodefense - phone +7(095) 7766281, (903) 2997584,

E-mail: ecodefense@online.ru or ecodefense@gmail.com

<http://www.antiatom.ru>

U.S. SENATE PASSES ENERGY BILL 85-12

The U.S. Senate on June 28 overwhelmingly passed an energy bill that would give billions of dollars of taxpayer money to the nuclear power and fossil fuel industries. However, the bill still faces an uncertain future since the House of Representatives passed a different version earlier this year and there remain major stumbling blocks between the two versions.

(632.5703) **NIRS** - Ironically, as if to prove just how out of touch the Congress is with the American people, the vote came just three weeks after the release of a new ABC-Washington Post public opinion poll, which showed that 64% of the U.S. public is opposed to the construction of any new nuclear reactors. Despite a steady Bush administration/nuclear power industry public relations campaign, the poll found that the number opposed to new reactors has actually increased by 12% since the last time the question was asked in June 2001.

According to an analysis of the bill by Public Citizen, the nuclear industry could receive US\$10.1 billion — and given the vague language in parts of the bill, potentially much more — in taxpayer subsidies and loan guarantees. The bill would also reauthorize the Price-Anderson Act, which limits industry liability in the event of an accident, for 20 years, and would authorize construction of a new reactor in Idaho to generate hydrogen, among numerous other benefits for the industry. For a full examination of

the bill's nuclear provisions, go to http://www.citizen.org/cmep/energy_enviro_nuclear/electricity/energybill/2005/articles.cfm?ID=13518.

The 12 who voted against the bill included seven Democrats: Corzine (NJ), Feingold (WI), Lautenberg (NJ), Nelson (FL), Reed (RI), Schumer (NY), Wyden (OR); and five Republicans: Gregg (NH), Kyl (AZ), Sununu (NH), Martinez (FL), and McCain (AZ).

However, the bill still has a long way to go and its final passage is uncertain. There are two major differences (and many less crucial) between the Senate and House versions. Most importantly is that the House version includes oil drilling in the Arctic National Wildlife Refuge (ANWR) and the Senate bill does not. While the Senate voted earlier this year to allow drilling in the Arctic, it did so on a different bill with a different process that prevented filibusters. It is highly unlikely that the Senate would accept an ANWR provision in the energy bill — there are more than 40 Senators who oppose

ANWR meaning that the House would have to allow its removal from the bill. But allowing removal might make it more difficult to enact an ANWR provision in another manner.

Another key difference is MTBE, a gasoline additive that has polluted local water supplies across the country. House leader Tom Delay (R-TX) has insisted that the energy bill include a provision exempting MTBE manufacturers — most of which are in his congressional district — from liability for the pollution. The Senate has opposed this provision, and this issue was a major reason an energy bill failed in the last Congress: the Senate and House simply could not reach a position of compromise.

It seems likely that some Senators voted for the energy bill this time merely to make a statement that they support an energy policy, but do not necessarily intend to vote for the bill that comes out of conference, particularly if renewable energy and other provisions currently in the Senate bill are removed by the House.

A closer vote is expected if and when a conference committee version is completed.

Finally, given the increasing public opposition to nuclear power and the huge subsidies granted the nuclear industry in both versions, grassroots outreach and action focused on the nuclear spending and urging Senators to oppose the final bill is likely to be effective.

During debate on the Senate bill, for example, Senators McCain (R-AZ) and Lieberman (D-CT) offered their climate change legislation, which was recently changed to include billions of dollars in funding for new reactors, as an amendment. That legislation failed by a larger margin than in the last Congress — four Democrats: Harkin (IA), Boxer (CA), Feingold (WI) and Dayton (MN) who had previously supported the legislation voted against it because of the added nuclear funding provisions.

What you can do: Call your Senators toll-free at 877-762-8762 and urge them to oppose the polluters' energy bill and prevent taxpayer funding of new reactors. Then ask some friends and colleagues to call, and get the issue (and phone number!) out at meetings

U.S.: HOUSE VOTES TO PREVENT LOANS FOR REACTORS IN CHINA

The U.S. House of Representatives voted decisively, by 313-114 on 30 June, to prohibit the U.S. Export-Import Bank from providing a US\$5 billion loan guarantee to Westinghouse for the construction of four new reactors in China. The vote came on a bipartisan amendment led by Rep. Bernie Sanders (I-VT), and was supported by a mixture of Republicans and Democrats.

It is not yet known whether a similar effort to prevent the loan, which would be necessary for the measure to become law, will occur in the Senate. The House vote does however send a clear message to Ex-Im not to proceed with the loan. The bank had given preliminary approval for the loan in February, but a more detailed assessment and final clearance is not expected until at least autumn.

The loan is controversial not only for the mere concept of providing

advanced nuclear technology to China but also because Westinghouse, while based in Pittsburgh, is no longer a U.S. COMPANY - British Nuclear Fuels, Ltd. (BNFL) owns it. In addition, BNFL has now put Westinghouse up for sale for US\$1 billion, meaning it has valued the entire company at only 20% of the loan guarantee amount.

Internal Ex-Im documents reportedly describe the loan guarantee, the largest in Ex-Im history, as risky. According to the *New York Times*, the guarantee would be nearly three times larger than any previous package offered by the bank and would work out to about US\$1 million per job created.

Several groups, including NIRS, Public Citizen, Greenpeace, Friends of the Earth, Taxpayers for Common Sense and US PIRG, urged the House to reject the loan guarantee.

and gatherings of all types. Visit <http://www.nukeretro.com>, watch the Nuke Retro animation, and send an e-mail to your Senator. And encourage everyone to sign the Petition for a Sustainable

Energy Future at <http://www.nirs.org>.

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EU TO PROBE SLOVAK NUCLEAR PLAN

The European Commission is to launch an investigation into planned state aid to the Slovak nuclear industry, following a complaint (filed on January 31, 2005) by environmental groups Friends of the Earth Europe, Friends of the Earth Slovakia and For Mother Earth Slovakia. It will be the first time a case of this kind has begun following an NGO intervention.

(632.5704) Friends of the Earth - The new probe will be the third occasion in as many years that the EU has had to scrutinize public subsidies towards the huge costs of decommissioning nuclear power plants and managing radioactive waste. The previous cases were British Energy in 2003, decided 23 September 2004, and British Nuclear Fuels Ltd. in 2004, which remains under investigation. The Commission is also investigating a further nuclear state aid complaint, concerning the new Finnish nuclear reactor.

The enquiry, led by Competition

Commissioner Mrs. Neelie Kroes, will center on a 2004 Slovak government decision to effectively increase the prices paid by ALL electricity users in the country. The scheme should have begun on 1 January 2005, but has been delayed repeatedly. If it eventually goes ahead, then the new levy would be used to fill a hole in a special nuclear decommissioning fund set up in 1995, which currently contains only around 10% of estimated total 'clean-up' costs.

By subsidising its nuclear sector, Slovakia would further distort its

energy market and so disadvantage other energy options such as renewables and energy efficiency. European law prohibits subsidies in principle. In practice, public aid must be agreed in advance by the European Commission, which in recent times is taking an increasingly tougher line against support for industries that are uncompetitive.

The case is also of interest because the company that operates the reactors, Slovenské Elektrárne (SE), is currently being privatised. Slovakia recently agreed, subject to conditions, to sell

66% of SE to ENEL, the giant Italian utility, for •840 million (around US\$1 billion). Decommissioning subsidy is believed to be a key condition of this deal, and so the Commission investigation could mean that the ENEL deal is delayed or has to be renegotiated.

If the subsidy plan is banned or cut back, then this would also damage the financial prospects of a proposal to build two new reactors (Units 3 & 4) at Mochovce. Another condition of the privatisation sale is that ENEL must present Slovakia with an appraisal of future investments, including potential new nuclear units at Mochovce.

"Slovakia has been caught out," said Mark Johnston, energy campaigner Friends of the Earth Europe. "It thought it could sneak through its subsidy plan, but instead it must now face EU scrutiny. The new investigation

by Mrs. Kroes must take a tough line against these blanket subsidies, and with her recent statements we think this could be so. Propping up dinosaur industries like nuclear has no place in a modern energy market. Reactors owners and their customers are the ones who must meet post-closure costs, not citizens generally."

"The money missing from the decommissioning fund was caused by mismanagement," said Peter Mihok, the CEE Bankwatch Network coordinator of Friends of the Earth Slovakia. "By paying too little into the fund in the past, the company made higher profits but the true financial position was misrepresented. Slovak people should not be forced to pay for these mistakes."

This new case is part of wider campaign by Friends of the Earth

calling for a new EU internal market law to outlaw nuclear subsidies, by ensuring it is the responsibility of all nuclear firms to meet fully themselves all their post-closure liabilities.

"This and other recent cases point to a systemic problem," added Mr. Johnston. "We suspect most plans to fund post-closure financial liabilities are faulty. Given member states' conflicting interests in this area, it is the EU that must lay down common binding rules."

Source: Friends of the Earth Europe press release, 13 June 2005

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U.S.: NRC REJECTS WASTE DEREGULATION—FOR NOW

With a vote of 5-0, Nuclear Regulatory Commissioners (NRC) postponed proceeding with a rulemaking that would have streamlined the deregulation and release of radioactive waste to unlicensed destinations.

(632.5705) NIRS – Had the rule-making been accepted, nuclear contaminated materials would have been generically okayed for dumping in regular trash landfills and for use to make roadbeds. Contaminated tools and equipment could be used or sold for reuse without warning or notification. With an additional, non-public step (likely to have been rubber stamped by the NRC) waste could have been "recycled" into consumer products.

The turnaround was remarkable because it was the Commissioners themselves who had strongly directed staff to prepare the waste deregulation rulemaking in the first place. The official reason given for delaying the rulemaking was that NRC has other higher priorities right now. These were not expressly listed but by implication include approving Early Site Permits for new nuclear power reactors (in Illinois, Mississippi and Virginia), licensing new uranium enrichment

facilities (in New Mexico and Ohio) and licensing nuclear waste dumps in Nevada (on Western Shoshone Indian land) and Utah (on Skull Valley Goshute Indian land). In addition, NRC is already allowing some nuclear waste to be released from regulatory control on a case-by-case basis and through license amendments. States like Tennessee have licensed nuclear waste "processors" that treat nuclear waste then send some of the remnants to regular garbage dumps in that state.

NIRS suspects that the NRC backed down for now because it wants to proceed with new licenses without the firestorm of public concern that the rulemaking could have triggered. The public does not want radioactive waste in their local garbage dumps, in children's braces and toys, or tools but the proposed "Control of Disposition of Solid Materials" rulemaking would have opened the door for nuclear waste to get out, affecting all of us, globally.

The NRC is seeking to the nuclear power industry maintain its undeserved and purchased "clean" image as it seeks enormous federal subsidies. (See energy bill article.) Admitting that nuclear waste is generated and could end up in personal use items could tarnish that illusion.

The NRC staff's preferred alternative for the rulemaking might have been a bit more complicated than the nuclear industry would like. In addition, the US Environmental Protection Agency is still deciding whether, and how, to proceed with its rulemaking that would allow nuclear waste to go to solid and hazardous waste facilities (with no nuclear controls) or be managed with a "non-regulatory approach."

History

In 1986 and 1990, the NRC adopted deregulation policies called "Below Regulatory Concern" (BRC). They similarly would have permitted

radioactive waste to go to unlicensed landfills and waste facilities and contaminated metals and other materials to be recycled into consumer products. The BRC Policies created widespread public opposition, media coverage and legislation in numerous states. In 1992 Congress intervened and overturned the NRC's radioactive waste deregulation policies.

In 2002 the Commissioners directed NRC staff to prepare new regulation releasing significant volumes of radioactive wastes from the requirement of being sent to licensed radioactive waste sites. In March 2005 the proposed regulation was sent to the Commission for approval.

Numerous environmental groups weighed in opposing it as a revival of

the discredited BRC Policy. On 3 June 2005, the Commissioners unanimously rejected the proposed regulation. They did, however, hold out the prospect of possibly reviving it at some time in the future—"two, five, or ten years from now" according to one Commissioner and in 2007 according to another.

Current

The NRC will, however, continue to release nuclear waste under its current case-by-case exemption procedures, which do not require public notice, comment or intervention. For example, NRC staff quietly approved (under 10 CFR 20.2002) sending the decommissioning waste from the closed Haddam Neck (Connecticut) and Yankee Rowe (Massachusetts) nuclear reactors to unlicensed dumps

in Idaho and Texas respectively. Opposition from the public and state officials forced cancellation or postponement of those shipments.

Action Needed

In the US we must continue educating the public, waste site operators and workers, recyclers, and transporters about the continuing threat from numerous federal agencies to build our power to block the release of radioactive waste. Internationally, we must educate and engage at every step in every country that moves to deregulate nuclear materials. Because of the global marketplace we are all impacted by actions in every nuclear nation.

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THORP LEAK UPDATE

Cumbrians Opposed to a Radioactive Environment (CORE) has learned that the 83 cubic meter of liquor that leaked into THORP's Feed Clarification Cell over a nine-month period was comprised of dissolved fuel from Holland and Switzerland as well as from Germany. In parallel with removing the leaked liquor from the Cell floor, British Nuclear Group has been identifying options for re-starting THORP using just one (in stead of two) Accountancy tank.

(632.5706) CORE - Given that British Nuclear Group's Board of Investigation report, published on 26 May, confirms that liquor had been leaking into the Cell from July 2004 to April 2005 – and that at least three separate reprocessing 'campaigns' had been undertaken during this period (Dodewaard, Beznau and Unterweser respectively) – observers will not be surprised to learn that the fuel from more than one European customer was involved. British Energy's AGR fuel may also be involved, having been reprocessed prior to the Dutch fuel.

The BNG Board of Investigation report infers that, from July 2004, the leak rate increased with time until mid-January this year when the pipe work feeding Accountancy Tank B suffered a complete fracture as a result of fatigue stresses. German fuel, reprocessed after the complete fracture of the pipe, is therefore likely to form a majority of the leaked 83 cubic meters, with Swiss, Dutch and possibly UK AGR fuel in lesser amounts.

No explanation has yet been provided by BNG as to how this cocktail of fuel, not only from different countries but also from different reactor types (BWR, PWR and possibly AGR fuel) can be properly processed in terms of separating out individual customers' products (plutonium and uranium) in line with the customer contracts and requirements. The liquor also contains dissolved steelwork from the support framework around the tank.

In parallel with removing the leaked liquor from the Cell floor, BNG has been identifying options for re-starting THORP. The Nuclear Decommissioning Authority (NDA) under the Freedom of Information Act (FoI) released details of these options to CORE. The information has revealed, via a BNG update on 24 May, that the company has selected – 'as the most appropriate' option – the re-start of THORP with the use of Accountancy Tank A only, thus permanently isolating the fractured pipe work and Tank B which it fed. In use, Tank A will

be used as a pumping tank only with accountancy of the dissolved fuel being carried out in a downstream buffer storage tank.

Though a detailed investigation will be carried out into the reliability/safety of the pipe work now intended to be used, BNG has said that it consists of a different and more flexible pipe-run than that which fractured at Accountancy Tank B. No detail is given as to how liquor accountancy can be carried out in the future in a buffer tank under the selected option, nor of the undoubted reduction to THORP's throughput rate as a result of having to operate on one tank instead of two.

BNG's Board of Investigation (BoI) report, together with information received from the NDA under the Freedom of Information Act, reveals a catalogue of human and design errors that contributed to the leak. The most significant are highlighted below.

- BNG has blamed the 'new plant'

culture, which pervades THORP operatives from managers down who believed "material losses on this scale could not conceivably be due to a leak; there had to be an error in the paperwork" (BNG BoI).

- Despite previous accidents in the plant, the 'new plant' culture has continued and lessons not been learned. "Given the history of such events so far, it seems likely that there will remain a *significant chance of further plant failures occurring in the future* (CORE emphasis) even with the comprehensive implementation of the recommendations of this report". (BNG BoI)

- The accountancy tanks were designed to move vertically (to allow weighing) and provision made for restraint to lateral movement of the tanks during agitation or seismic events. It is now known that the restraints were never fitted and that modifications were

made to the steelwork supporting the tanks allowing greater potential for lateral movement. This movement led to the stress fracture of the 40mm pipe where it joined the tank. (BNG FoI)

- "These stresses arose as a result of modifying the design and not maintaining the intent i.e. restraining vessel movement" (BNG BoI)

- The pipe work leading to the Accountancy Tank had exceeded its theoretical life expectancy given the level of vibration observed in the video of the tank operation. (NDA FoI – BNG THORP Feed Clarification Cell Update 24 May 2005)

- There is evidence to suggest that the accountancy tanks have recently been agitated for longer periods than required to take homogenous samples. (BNG BoI)

- Despite the requirement to regularly

sample and measure liquor levels on the Cell floor "the operations staff did not act appropriately to 'off normal' conditions in either the level instrumentation or the sampling process". (BNG BoI)

- Operators were not alerted by the Cell's sump alarms. "There is a significant history of erratic alarm operation associated with the Buffer sump level. Between 01/07/04 and 22/03/05 the alarm has flagged a Lo or Lo-Lo status over 100 times. There is no evidence of investigation or corrective action during this period". (BNG BoI)

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Web: www.corecumbria.co.uk

BRUSSELS: INTERNATIONAL CONFERENCE TO BAN URANIUM WEAPONS

The International Coalition to Ban Uranium Weapons (ICBUW) held a conference at the European Parliament in Brussels on June 23-24, 2005 and called on the European Parliament to implement its 2003 resolution on a moratorium on the use of depleted uranium in European states. The conference was sponsored by the European Parliament's Intergroup for Peace Initiatives and also supported by several political parties including the Greens.

(632.5707) **Laka Foundation** - The programme for the two-day meeting began with presentations from member organizations from Iraq, the U.S., the U.K., Japan, Germany, Italy, Belgium and the Netherlands, each giving an overview on depleted uranium (DU) developments in their countries in the past year. Guests and Members of European Parliament (MEPs) were later invited to take part in a panel debate on the issue in general.

Dr. Jawad Al-Ali, Head of the Sadr Teaching Hospital in Basra, Iraq, reported on the rise of cancer casualties and congenital birth defects in the Basra area - especially in areas polluted by DU. Dr. Al-Ali described the continued spread of contamination and illustrated this using a detailed

map of the city of Basra, marked to show where DU was used in the 1991 Gulf War and during the 2003 war. The simple map showed how the areas contaminated by increased from 21 sites following the 2003 war to 57 sites to date.

Vehicles and other contaminated equipment are moved from one area by the coalition forces only to be dumped in another public location. Meanwhile the Iraqi people, desperate for materials, strip the contaminated vehicles for spare parts or to sell on the contaminated metals as scrap to factories. As a result the DU is spread far and wide, contaminating homes and exposing entire families to the risks of becoming poisoned.

Dr. Keith Baverstock, scientific

researcher and the former Head of the Radiological Protection Division of the World Health Organization (WHO), explained the toxicological aspect of the cover-up on the hazards of DU.

Following detailed analysis of several ways in which DU oxide particles could pose harm to the human body, Baverstock revealed three potential risk routes in addition to the conventional radio toxicity caused by direct irradiation (alpha radiation), namely, chemical geno toxicity, synergy between radiation and chemical toxicities and the bystander route.

Unfortunately these scientific insights have failed to make any impact in the corridors of power. The relevant and responsible bodies such as the WHO, the International Atomic Energy

Agency (IAEA), the U.K. Royal Society, the International Commission on Radiological Protection (ICRP) and the European Commission Article 31 Group have roundly ignored Baverstock's findings thus far.

Dr. Baverstock remains concerned at this lack of interest and stated, "You may wonder, as I do, how such authoritative and independent organizations, making ostensibly 'independent' assessments of the situation can ignore all the evidence that exists in scientific literature."

During his presentation, Baverstock also referred to recent studies on the toxicity of nickel, which has similar levels of toxicity as DU. In contrast with DU and despite their similarities, this heavy metal (nickel) is considered to be an established carcinogen.

Prof. Dr. Manfred Mohr moved the focus of the discussion on to international law with its various branches: international humanitarian law, human rights law, and environmental law. International law, he explained is not only about articles, treaties and detailed norms, but also mostly about basic principles. The precautionary principle being an excellent example of a basic principle used in both international and national environmental law and also based in the EU normative system.

Prof. Mohr explained about the potential opportunities for the law to be used to support campaigners views, adding that the Draft Convention, which he wrote with a Polish colleague, could play a vital role.

The main goal of ICBUW is for this Draft Convention, currently being negotiated upon with the UN and nation states, to be adopted as a real Draft, open for signatures and ratification as has occurred with other models like the Ottawa Treaty or the Chemical Weapons Convention.

It is important, Mohr declared, that all legal possibilities are worked out in parallel given that they are not exclusive to each other. He added, "we

have to stress: ban means in our terms, in our perspective, not to create the prohibition of the use of DU weaponry, which is already there, but to abolish the weapon. And for this, you need to have a treaty, otherwise it is not possible to get rid of certain weapons."

On behalf of EUROMIL, an umbrella organization of trade unions and associations of military personnel, Mr. Emmanuel Jacob expressed support for the goals of ICBUW - EUROMIL already urges governments to ban the use of DU weapons. EUROMIL consists of 34 organizations from 22 European countries from Ireland to Russia, from Finland to Spain.

The panel discussion on the first day and the presentations and discussions on the second day brought interesting issues to the surface that will need to be explored in future debates.

Avril McDonald, a lawyer from the Dutch Asser Institute stated that she did not yet believe that the case against DU is watertight, citing the apparent lack of epidemiological

research but did admit that the arguments against its use were convincing. Dr. Baverstock responded that many chemicals have previously been banned without ever being subject to epidemiological research.

Photo coverage of the conference is available at www.bandepleteduranium.org

A full report of this conference will be published on the website in autumn.

Source and contact: Henk van der Keur and Lizzy Bloem
Laka Foundation

60TH HIROSHIMA/NAGASAKI COMMEMORATION AUGUST 2005

The mayor of Hiroshima, Mr. Akiba Tadatoshi, calls for participation in the **peace walk from Ypres to the NATO nuclear weapon base in Kleine Brogel, north Belgium between July 26th and August 9th 2005.**

The peace walk, organised by For Mother Earth - Flemish member of Friends of the Earth International, marks the 60th anniversary of the bombings of Hiroshima and Nagasaki on August 6th and 9th 1945.

Mr. Yoshio Sato, a survivor of the A-bomb in Hiroshima will join walkers in Belgium.

In a letter to For Mother Earth, the mayor of Hiroshima writes, "I hope many will join -even for one day- and walk in solidarity with the survivors of the bombings of Hiroshima and

Nagasaki, whose wish is "No more Hiroshimas, no more Nagasakis ever again". See letter from mayor Akiba at <http://www.motherearth.org/walk/akiba.pdf>

The approximately 250 km long walk designed to increase pressure on NATO member states to work towards a treaty for a global ban on nuclear weapons, as stipulated in Article VI of the Non Proliferation Treaty (NPT).

For registration and more information visit: http://www.motherearth.org/walk/index_en.php

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IN BRIEF

France to host ITER fusion reactor.

After deadlocked discussion, the partners in the International Thermonuclear Experimental Reactor have agreed to site ITER at Cadarache, in southern France. The deal involved major concessions to Japan, which had put forward Rokkasho as a preferred site. The EU and France will contribute half of the EUR10 billion (US\$12 billion) cost, with the other partners - Japan, China, South Korea, USA and Russia - putting in 10% each. Japan will provide most of the high-tech components, host a EUR 1 billion (US\$1.2 billion) materials testing facility and will have the right to host a subsequent demonstration fusion reactor. The total cost of the 500 MW (thermal) ITER comprises about half for the ten-year construction and half for 20 years of operation. Currently the largest fusion reactor is the 16 MW Joint European Torus (JET), which can sustain plasmas of a few megawatts for a few seconds.

UIC Weekly Digest, 1 July 2005

Ultra low-grade deposits - the future of uranium mining?

Uranco Inc., a so far unknown uranium development company from Johannesburg, has entered into an agreement to acquire the Trekkopje uranium deposits in Namibia. These are large low-grade deposits containing 33500 tonnes U at an ore grade of 0.0085% U (85 ppm U). This grade is less than one third of the grade mined at the nearby Rössing mine, which is the lowest grade commercially mined so far, and it is less than one tenth of the grade found at the nearby Langer Heinrich deposit, the development of which is currently being prepared by Paladin Resources Ltd. According to Uranco, preliminary work by its consultants indicates that its deposits would be economic, in view of the recent rise of the uranium market price. Another attempt to focus on very low grade uranium has been abandoned, however: In February 2005, Aflase Gold and Uranium Resources Ltd. announced plans to recover uranium contained in the tailings generated by gold mines of Harmony Gold in South Africa. This resource was reported to include

59,619 t U in "high grade" dump and tailings material and a further 55,772 t U in "low-grade" tailings. The project was terminated, however, after drilling results from several of the tailings showed that "the uranium resource fell short of expectations".

Business Day, 3 February, 2005;

Business Report 26 May, 2005; Galahad Gold PLC release 30 June, 2005

Nuclear power costs: underestimated by factor 3.

The cost of new nuclear power has been underestimated by almost a factor of three and the potential of small-scale renewables critically overlooked according to a new report from NEF (the New Economics Foundation), *Mirage and Oasis*, released on 29 June 2005. Nuclear power has been promoted globally as the answer to climate change and energy insecurity. But the report reveals that as a response to global warming, nuclear power is too slow, too expensive and too limited. And, in an age of terrorist threats, it is more of a security risk than a solution. In comparison, renewable energy offers safe, secure and climate-friendly energy supply systems, leaves no toxic legacy and is abundant and cheap. Renewable energy sources like wind, solar and geothermal could, in theory each individually meet all of the world's energy needs. Practically, a broader combination of renewable sources than is currently utilized could more than meet all of our needs. Better still, they have the ability to create new access to energy supplies for millions of people around the world who currently lack basics, such as lighting or the ability to cook without inhaling lethal indoor smoke. *The report can be found at:* <http://www.neweconomics.org/gen/uploads/sewyo355prhbgunpscr51d2w29062005080838.pdf>

UK govt's Urenco plan blocked by partners.

The UK government's plan to privatise Urenco, the uranium enrichment group, via a 1.7 billion pound (US\$2.99 billion) flotation is being blocked by the Dutch and German governments, the two other shareholders in the company, according to the

Sunday Telegraph. Britain owns a 33 percent stake in Urenco through British Nuclear Fuels Ltd. In 2004, Urenco reported earnings before interest, tax, depreciation and goodwill amortisation of EUR 394 million (US\$476 million), up 12 percent on 2003 profits, and net profit of EUR133 million (US\$160.7 million). **AFX UK Focus, 26 June 2005**

Earthlife Africa demands Eskom Board minutes.

The Johannesburg High Court will hear Earthlife Africa's (ELA) case against Eskom on 30 August 2005. The case is to review Eskom's decision to refuse information requested under the Access to Information Act. The Open Democracy Advice Centre (ODAC) is representing ELA in this matter. The group has been locked in battle with Eskom since it attempted to participate in the Environmental Impact Assessment (EIA) in 2000 and discovered that insufficient information had been put forward to enable any meaningful participation. Earthlife Africa seeks to ensure the public's right to be fully informed of all the risks and impacts given that the project involves public enterprises and electricity consumers will be asked to finance it. So far both international companies involved in the early stages, Exelon and Areva, have pulled out of the project finding it an unattractive prospect and not viable for large-scale electricity generation - the project is still seeking investors. ELA will therefore use the law to force Eskom to reveal the information used to justify investment into the PBMR so that an assessment can be made as to whether this was in the public interest.

Earthlife Africa Cape Town press release, 20 June 2005

Belarussian KGB investigating new Chernobyl accident rumors.

According to the Russian Interfax news agency, the Belarussian KGB is attempting to establish the origin of an organization called the National Liberation Army, which claimed responsibility for an accident at the Chernobyl nuclear power plant that allegedly occurred in late May

according to a statement on the Internet. Children from Southern Belarus who traveled to Ireland in June, said they were told to stay indoors and keep windows and doors closed etc in May...They say they received vague information about a possible radioactive release at Chernobyl. Authorities have not confirmed these rumors.

Interfax, 9 June 2005; Chernobyl Children's Project International, 13 June 2005

Japan switches away from FBR development.

One of the few countries working on the fast breeder reactor 'white-elephant' (supposed to insure long term availability of fuel for nuclear power), Japan, is reported to be switching its focus from the fast breeder reactor to advanced light water reactors. According to the Nuclear Energy Policy Planning Division of the Agency for Natural Resources and Energy, new designs are to lead to a 20% reduction in construction and generation costs and

a 20% reduction in spent fuel quantity, with improved safety. The Agency will seek funds for this development in next year's budget, though Hitachi is already well advanced with variants of the ABWR, and Mitsubishi with Westinghouse and four utilities is developing a 1500 MWe APWR design which is intended to be the basis of the next generation of Japanese PWRs. Is this the beginning of the end for one of the remaining dreams (and hopes) for nuclear power?

UIC Weekly Digest, 17 June 2005

USA: LANL whistleblower attacked.

Tommy Ray Hook, a whistleblower from the Los Alamos National Laboratory was attacked by a group of men seeking to intimidate him into not giving evidence against LANL. The 23-year old employee was told, "If you know what is good for you, you will keep your mouth shut". Hook claims to have uncovered fraud at the Lab (one of the main nuclear weapons laboratories in the US) and was contacted by someone claiming to be a

lab auditor with proof of more wrongdoing. Hook was lured to a fake meeting at a strip club in Santa Fe, New Mexico. After waiting an hour, Hook left the club and he returned to his car in a nearby parking lot where he was then attacked. He was brought to hospital suffering from a broken-jaw, a herniated disc in his back, broken teeth and a loss of consciousness. According to Hook's attorney, who alerted the FBI, "They made statements to him during the course of the attack, which indicated that they were trying to intimidate him from continuing to engage in disclosure of wrongdoing. They left him in the parking lot for dead." Members of the House Committee on Energy and Commerce are meeting with Hook to prepare his testimony for the congressional investigation. The hearing will cover broad management concerns such as worker safety, whistleblower protections and the restart of the lab after a seven-month shutdown last summer.

The Sunflower, June 2005

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THE NUCLEAR MONITOR

The Nuclear Information & Resource Service was founded in 1978 and is based in Washington, DC. The World Information Service on Energy was set up the same year and is housed in Amsterdam, Netherlands. NIRS and WISE Amsterdam joined forces in 2000, creating a worldwide network of information and resource centers for citizens and environmental organizations concerned about nuclear power, radioactive waste, radiation, and sustainable energy.

The *Nuclear Monitor* publishes international information in English 20 times a year. A Spanish translation of this newsletter is available on the WISE Amsterdam website (www.antenna.nl/wise/esp). A Russian version is published by WISE Russia, a Ukrainian version is published by WISE Ukraine and a Japanese edition is published by WISE Japan (later two available at www.nirs.org). The *Nuclear Monitor* can be obtained both on paper and in an email version (pdf format). Back issues are available through the WISE Amsterdam homepage: www.antenna.nl/wise and at www.nirs.org.

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July 25--Call-the-Senate Day!

On Monday, July 25, Ani DiFranco, The Indigo Girls, James Cromwell and others will be lobbying the U.S. Senate to stop the energy bill and the proposed Private Fuel Storage high-level waste dump. Support their efforts by calling your Senators (202-224-2131) on July 25 with the same demands!

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