NIRS

wise
World Information Service on Energy
founded in 1978

NUCLEAR MONITOR

A Publication of World Information Service on Energy (WISE) and the Nuclear Information & Resource Service (NIRS), incorporating the former WISE News Communique

#577 **November 22, 2002**

LARGEST EVER CASTOR TRANSPORT TO GORLEBEN

The largest ever nuclear waste transport from La Hague, France to Gorleben, Germany took place from 11-14 November. Thousands of protesters took part in actions against the transport. As with previous transports, protests delayed the transport by several hours, although the massive police presence ensured that the transport eventually reached Gorleben.

(577.5459) WISE Amsterdam – The idea behind transporting 12 Castor nuclear waste casks at the same time was essentially to save money. Instead of transporting 6 nuclear waste casks twice a year, the authorities decided to transport 12 casks once a year, so that the authorities "only" need to organize one massive police operation, involving around 15,000 police and border guards, per year.

For the authorities, there are other advantages: "only" one international outcry per year about the repression that occurs during every transport, "only" once per year – this time conveniently after the elections – that the Gorleben transport highlights yet again the inconsistency of the consensus agreement on nuclear phaseout.

And, of course, only "once" per year that protesters, despite being massively outnumbered by the police, succeed in blocking the transport, at least temporarily, in several places along its route.

This time, the transport was blocked 11 times by non-violent direct actions at several locations on its route through Germany (1).

The largest of these was when over 1,200 people sat down in the road for over 5 hours near Laase, on the final part of the waste convoy's journey.

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And this time, police actions left 13 people seriously injured (2). Hundreds of people were arrested, of which at least 180 were detained in bad conditions for longer than German law permits (3). At one point, police took their time with processing documents – a trick to keep people detained for longer by delaying the work of the judges who needed to approve their detentions (4).

The police even banned a head teacher from his own school when he pointed out that they did not have the correct papers to occupy his school (5).

Gorleben International Peace Team have asked people to write letters of protest to the German Foreign Minister, Joschka Fischer.

"Sustainable repression"

The authorities clearly accept that the protests will continue for many years. They have built new "semi-permanent" accommodation, designed to last for 10 years, for some of the police who are brought into the region (6).

This "semi-permanent" accommodation will remain empty for most of the year. It is as if the Green concept of "sustainability" has been applied to the organization of police operations to repress

demonstrations during the transports.

This all serves to underline the unsustainability of the nuclear industry itself, which in Germany is on a downward trend. Nuclear's share of primary energy consumption has fallen by 5.9% in the year ending 30 September 2002, while renewables have increased by 14.3%, creating tens of thousands of new jobs (7).

CASTOR AND NEUTRONS

Professor emeritus Rolf Bertram of the Technical University of Braunschweig (Germany) has questioned the safety of long-term storage of the Castor containers. Th problem is irradiation by neutrons from the high-level waste inside. Rods of polyethylene, which are used in the container walls as a shielding material for neutron radiation, will degrade by so-called radiolysis into hydrogen and carbon. This will affect the effectiveness of the neutron shielding material in the container walls and can also corrode the cast iron container walls. Inside the iron, radioactive isotopes will arise by neutron activation and radioactive tritium could escape from the polyethylene rods and eventually leak out of the Castor. Risk assessments have never taken this effect into consideration, according to Bertram.
***Strahlentelex*, 7 November 2002**

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NORTH KOREA: OIL AID STOPPED

U.S. oil aid to North Korea has been stopped after North Korea admitted it had an illicit uranium-based nuclear weapons program. This throws into doubt the related Kumho nuclear power plant project, and highlights the spectacular failure of the bizarre "replace-nuclear-with-nuclear" strategy for stopping nuclear proliferation.

(577.5460) WISE Amsterdam – The November oil shipment, currently underway, will continue, but it will be the last. That was the message given on 15 November at a conference of diplomats from South Korea, the US, the European Union and Japan. A senior South Korean government official commented, "I hope this message will be heard by North Korea".

It may seem surprising that this "message" was not sent earlier. After all, when U.S. President Bush, in his State of the Union address of 29 January 2002, claimed that North Korea, Iran and Iraq constitute an "axis of evil", it looked like U.S. aid to North Korea was over. Yet, on 1 April 2002, Bush signed a memorandum authorizing US$95 million in oil for the "axis of evil" country, determining that it was "vital to the national security interests of the United States" that the money was released (1).

The oil was, however, only part of the aid program administered by the Korean Peninsula Energy Development Organization (KEDO). KEDO's main aim is to build two new nuclear power reactors in Kumho, North Korea, in exchange for North Korea agreeing to abandon its weapons program. The oil was intended as a stopgap to enable North Korea to generate electricity until the nuclear power station is complete (2).

This bizarre "replace-nuclear-with-nuclear" program turned out to be a spectacular failure when North Korea admitted continuing a nuclear weapons program based on high-enriched uranium despite agreeing to stop developing nuclear weapons (3).

The international response to North Korea's revelations about its weapons program has focused on the oil shipments, since "key nuclear components" of the Kumho reactors were not planned to be delivered until 2005.

Yet, at the same time, the question arises of how North Korea has obtained uranium enrichment technology. While it seems clear that Pakistan provided the technology, controversy arose over the Bush administration's claim that Pakistan assisted North Korea only three months ago (4). This would imply that Pakistan had aided North Korea

WISE Amsterdam/NIRS
ISSN: 0889-3411

Editorial team: Stuart Field, Robert Jan van den Berg (WISE Amsterdam), Michael Mariotte (NIRS). **The next issue** (578) will be mailed out on 6 December 2002.

Oops! In the last issue, there were a few mistakes. In the article "A Yucca Mountain in the heart of the Great Lakes?", it reads that "all" commercial waste in Ontario is going to Bruce. In fact, commercial high-level waste from Ontario's 12 other reactors is not (yet, anyway!) going to Bruce.

Also, in the same article, the Environmental Protection Agency limit for tritium in drinking water is 740 Bq/l (not 700 Bq/l).

after Bush gave his "axis of evil" speech – an allegation which Pakistan has vigorously denied (5).

The situation was compounded by a recent confusion when a North Korean radio statement on 17 November appeared to admit that the country possesses nuclear weapons. The following day (18 November), the statement was repeated but with one extra syllable, changing it to a statement that the country "is entitled to have" nuclear weapons (6).

Non-Proliferation Treaty

North Korea's admission also has far-reaching implications for the Non-Proliferation Treaty (NPT). Unlike its promise to KEDO, which is not legally binding, North Korea has clearly broken international law by violating the NPT. If North Korea were allowed to get away with this, the whole future of the NPT would be thrown into doubt (7).

In retrospect, it seems crazy that anyone could think that providing civil nuclear technology was the best way of stopping North Korea's nuclear weapons program. Yet a similar idea is embodied in the two functions of the International Atomic Energy Agency (IAEA): to prevent nuclear proliferation while promoting the "peaceful" use of nuclear technology. The North Korea affair highlights once again that "Atoms for Peace" doesn't work, and that in the nuclear age, security means ending the nuclear age (8).

NUCLEAR-POWERED "AXIS OF EVIL"

North Korea, Iran and Iraq have little in common politically, so it seemed strange that President Bush described them as an "axis of evil". One thing they do have in common, however, is the attempt to acquire nuclear weapons, often under the guise of a nuclear power program.

The U.S. and Russia continue to disagree over Russia's help in the construction of a nuclear power station at Bushehr in Iran. U.S. officials now claim that Iran is developing a nuclear weapons program under the guise of "nuclear fuel cycle facilities". John Wolf, assistant secretary of state for non-proliferation, has accused Iran of purchasing "esoteric technologies which only really make sense as part of a weapons development program".

In the case of Iraq, the UN weapons inspection team is led by nuclear experts. Dr. Hans Blix, who heads the inspection team, campaigned in 1980 to retain Sweden's nuclear energy program. Despite Blix's campaign, Sweden decided to phase out nuclear energy. Nevertheless, he was rewarded for his efforts, being made Director-General of the International Atomic Energy Agency (IAEA) in 1981, a post he retained until 1997. During his directorship, Iraq managed to hide its nuclear weapons program from the IAEA. Dr. Blix admitted that "the IAEA was fooled by the Iraqis" but claimed that "the lesson was learned".

He is joined on the latest mission to Iraq by Mohammed El-Baradei, current IAEA Director-General. The presence of the two men serves to highlight the IAEA's sometimes contradictory roles: on the one hand, to prevent the proliferation of nuclear weapons, while on the other hand promoting the "peaceful" use of nuclear technology.

Besides nuclear weapons, the weapons inspection team is also looking for biological or chemical weapons.

Newsday.com, 20 November 2002; BBC, 19 September and 18 November 2002

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Contact: NIRS or WISE Amsterdam

WILL LES ENRICH HARTSVILLE?

Louisiana Energy Services, which wants to build a uranium enrichment plant in Hartsville, Tennessee, has treated around 20 officials and residents from around Hartsville to a visit to the Netherlands.

(577.5461) WISE Amsterdam – The main purpose of the visit was to tour the Urenco uranium enrichment plant in Almelo. Louisiana Energy Services (LES), a joint venture lead by Urenco and including various U.S. utilities, wants to build a similar plant in Hartsville in the US state of Tennessee. LES is trying to convince officials of surrounding counties to sell or lease land and grant appropriate zoning (land use permission) for the nuclear facility.

The visitors returned with generally positive impressions of the Almelo plant, which they described as clean and well-run (1). However, they had several concerns.

Top of the list is what happens to the plant's radioactive waste products. Only a small amount of the uranium passing through the plant is used to manufacture nuclear fuel; most of it ends up as "tails", depleted uranium hexafluoride (DUF_6), a highly toxic, volatile substance that remains radioactive for millions of years.

County officials want a written agreement with LES on what would happen to the "tails" (2).

Urenco Netherlands has three options for dealing with these "tails" – options that might not be open to LES. Urenco likes to send them to Russia for "re-enrichment" (3), but Canada forbids this for uranium of Canadian origin (4).

Alternatively, a plant in France converts them to uranium oxide, which is chemically less dangerous, for storage. In the U.S., a contract to build two conversion plants has only recently been awarded, and conversion of existing "tails" is expected to take 25 years (5). This leaves the third option – storage on-site as toxic, volatile hexafluoride.

Another concern was jobs. LES have admitted that about 70% of the jobs would go to skilled technical workers with at least a two-year college degree and experience in a nuclear-related industry (6). Only a minority of the jobs would therefore go to existing local residents.

Circumventing democracy
As well as looking for local support, LES needs federal approval from the U.S. Nuclear Regulatory Commission (NRC) in order to build the plant.

PHILIPS AND URENCO

George Dials, president of LES, has suggested that the Philips Electronics plant next to Urenco Almelo was evidence that extra business has come to Almelo thanks to Urenco.

What actually happened is that Philips was involved from the start in Urenco, and back in 1969 bought the site on which Urenco Almelo stands now. Philips had a large share in Urenco for about 10 years, but then, like other companies involved, wanted out. The Dutch government bought up nearly all of the shares in UCN (98.9%), with the remaining 1.1% owned by Philips and others.
***The Tennessean*, 19 November 2002; C. Andriesse, *De Republiek der Kerngeleerden*, 2000; www.antenna.nl/wise/uranium/ecure.html**

LES' previous attempt to build a similar plant in Homer, Louisiana, was the only occasion that the NRC turned down an application for a new nuclear plant without the decision being overturned on appeal (7).

This time, LES submitted a set of "white papers" to the NRC in an attempt to get the NRC to pre-judge key licensing issues in their favor, even before a license application has been submitted (8). NIRS and others have written to the NRC urging re-jection of this attempt to stifle public input in the licensing process (9).

This was not the only LES attempt to circumvent the democratic process. LES looked at three sites before selecting Hartsville. One of these was in Unicoi County, where Alderman Johnny Lynch received a threat that if the Town of Unicoi didn't stop opposing the project, the town council would be abolished (10).

Security risk
Another issue is the risk to national security. The US Enrichment Corporation (USEC) has repeatedly argued to the NRC that the LES project could threaten national security (11). USEC's concerns revolve principally around the substantial foreign ownership component in LES.

However, there is another reason to regard LES as a security risk. LES lead partner Urenco has had its uranium enrichment technology stolen by both Pakistan (12) and Iraq (13).

Pakistan used the technology to make nuclear weapons. It now seems that Pakistan has, in turn, passed the technology on to North Korea (14). Therefore, 2 out of 3 countries in what President Bush calls the "axis of evil" have obtained nuclear weapons technology from Urenco. A third way in which the LES project could threaten national security is by causing prices of enriched uranium to destabilize, according to USEC (15). This could jeopardize the "Megatons to Megawatts" project, which converts high-enriched uranium from Russian nuclear weapons into fuel for US reactors.

Ironically, USEC itself faces a proposed US$60,000 fine for failing to protect classified information at its Paducah, Kentucky plant (16), and a lawsuit for allegedly falsifying records of workers' exposure to radiation at its now-closed Ports-mouth plant in Piketon, Ohio (17).

Enrichment?
All of this shows that, while the LES plant might "enrich" Hartsville by bringing money into the area, only some of this would "trickle-down" to current residents. With its large quantities of waste which remains radioactive for millions of years, and its national security risks, LES is therefore not a "smart choice" for local economic development.

For more information, see the NIRS web site, or the web site of Citizens for Smart Choices, the local campaign against LES: www.stoples.org

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Contact: Michael Mariotte at NIRS

EXPLOSION IN INDIAN NUCLEAR FUEL PLANT

On 17 November, there was an explosion at India's only nuclear fuel manufacturing plant in Hyderabad. While no injuries were reported, some press reports on the incident indicate that radioactive material may have been involved, while others deny this.

(577.5462) WISE Amsterdam – The explosion was in part of the Hyderabad Nuclear Fuel Complex (NFC), which makes nuclear fuel and zirconium alloy components for India's nuclear reactors. The explosion destroyed the roof of part of the plant, but seven people working nearby avoided injury.

However, from media reports it is not clear which part of the NFC was affected. According to an initial BBC report, quoting an official press release, the explosion was in "the purification plant of ammonia nitrate which was away from other plants handling the radio active material" (1). However, other reports said that the explosion occurred in the uranium oxide plant, which was subsequently sealed off (2).

Ammonium nitrate is a common by-product in the production of uranium oxide, and can explode in contact with combustible material.

One report mentions a "spillage of uranium-bearing liquid" which "was later taken back into the process plant" (3).

On 18 November, a team from India's Atomic Energy Regulation Board visited the site to investigate the accident, and "ensure that the decontamination of the affected plant, where the radioactive material had spilled following the blast, was done properly" (4).

The team initially estimated the damage at only 30,000-40,000 rupees (around US$600) (5) – a ridiculously low figure that obviously cannot include the cost of lost production at India's only nuclear fuel plant.

Appalling conditions

The incident highlights once again the safety problems in India's nuclear industry, where even at Kakrapar, supposedly India's "best" nuclear power station, radiation levels are three times the international norm (6).

India's uranium comes from the Jadugoda mine, where the appalling conditions and illnesses of local people have been the subject of an award-winning film, "Buddha Weeps in Jadugoda", and a court case brought by local residents against the Uranium Corporation of India Ltd. (7)

India is still busy building nuclear power stations. The first concrete was poured at the site of Rajasthan-5 and 6 on 17 October (8).

Meanwhile, protest continues both in India and neighboring Sri Lanka (9) against the continuing construction of Koodankulam Nuclear Power Plant on the southern tip of India (10).

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Contact: WISE Uranium

U.S. NRC RESUMES RADIOACTIVE "RECYCLING" RULEMAKING

The U.S. Nuclear Regulatory Commission has announced that it will proceed to make a rule regarding deregulating or "releasing" nuclear waste from regulatory control.

(577.5463) NIRS - Has radioactive waste from nuclear power and weapons gotten past the detectors at recycling facilities and made it into our daily-use items, garden soil, basement cement, kids' toys, zippers, frying pans, car, bed, furniture, tableware, prostheses, jewelry and more? Is it being trucked to the community dump or incinerator to leak into the water table, drinking water, air and environment?

This could be happening now, because some radioactive materials are already being permitted out into commerce in the U.S. and Europe.

In the US:
1) The Nuclear Regulatory Commission (NRC), through case-by-case permits and provisions in some licenses, is letting nuclear waste be treated as if it is not radioactive;

2) "Agreement States" like Tennessee give permits to companies to "process" and/or release radioactive materials into the marketplace or send them to landfills not originally

intended to take nuclear wastes. The waste is mainly from the operation and decommissioning of Department of Energy (DOE) nuclear weapons sites, DOE's contractors and NRC and Agreement State licensees;

3) already-lax NRC decommissioning standards are being misused to justify relatively high levels nuclear materials being sent to regular garbage landfills and normal recyclers. The California Department of Health Services has approved public exposures from each truckload of decommissioning waste to be as high as the annual dose from an operating nuclear power facility. (This was challenged successfully in state court, appealed and upheld, but state legislation to expressly prohibit nuclear contaminated materials in unlicensed facilities was vetoed.);

4) The Department of Energy allows all radioactive materials except some metals to be released through its secretly adopted internal orders, DOE 5400.5.

In Europe the European Commission has mandated that all members adopt European Council Directive 96/ 29/ Euratom of 13 May 1996 "laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation"(1).

Not all countries have adopted the provisions on radioactive clearance and some have adopted stricter standards. It appears that Euratom, the European Atomic Energy Agency, has the authority to set across the board radiation standards for the whole European Union. Some countries have refused to adopt the portion of the Directive that permits "clearance" of nuclear materials from regulatory control; some of them have adopted stricter and different standards.

The actual status of the adoption of the clearance provision by each country is not known at this time, even by the Commission. Yet it is touted as an international standard that the US should also adopt.
But the existing EU policy that allows the clearly-pronuclear Euratom Agency to set radiation standards for all of the European Union (EU) is being challenged. EU member countries (the majority of which are not pronuclear) and their trading partners should not have to accept, as dictum, lax radiation standards developed behind closed doors with no public process.

The effect of the Euratom Directive promoting the "clearance" or dispersal of nuclear wastes into commerce is impacting not only Europe. The US Nuclear Regulatory Commission, having been unsuccessful in making such a policy for the US thus far, is now using the existence of the Euratom Directive as an indicator of European support for the unpopular concept.

NRC has been looking to the European Union, the International Atomic Energy Agency, the Department of Energy and the National Academy of Sciences to build public confidence in the nuclear industry's plan to get rid of its waste cheaply.

The US Nuclear Regulatory Commission (NRC) hired the National Academy of Sciences, National Research Council to give credibility to the practice of selling or donating radioactively contaminated metals, concrete, soil, plastics, asphalt and other solid materials into the regular marketplace as if they are not radioactive. The resulting report (1) did not do that.

The committee, despite its heavy weighting in favor of the nuclear power industry including radioactive wastes generators, declined to

ENERGY BILL DIES

The US Energy bill, an unmanageable mess from the beginning, finally died in early November during the "lame-duck" session of Congress (i.e. after elections for the new Congress had taken place). While the bill had momentum in early September, progress on the more controversial issues caused the bill to implode. Two different versions of the Energy Bill passed the Senate and the House. The bill died in conference committee, owing to a lack of time to compromise on many irreconcilable issues such as ANWR, fuel efficiency, and renewable energy. Regional issues, such as subsidies to ethanol, also made compromise impossible. The Bush Administration did its share to kill the bill when it refused to accept any energy bill without an electricity title.

The attempt to pass just the Price-Anderson part of the energy bill failed. The Price-Anderson Act, which covers accidents at nuclear facilities with public money rather than making the nuclear industry liable, was passed only in part. The commercial side of Price-Anderson did not pass in any form. This means new nuclear reactors will not, as of now, be covered. Current reactors are already covered and no further passage of Price-Anderson is required for their indemnification. The liability coverage for Department of Energy Facilities passed not as a specific bill, but as part of the 2003 Defense Department authorization bill and only lasts until 31 December 2004.

Although we won a hard-fought victory this year by bringing to light the controversial parts of the energy bill, we start anew next year, with a US Congress much more hostile to proper and long-sighted energy planning. Senator Domenici (Republican-New Mexico) vowed to "come back next year" to "do it better than it was done this time." Domenici will chair the Senate Energy and Natural Resources Committee.

Source and contact: Cindy Folkers at NIRS (cindyf@nirs.org)

endorse the free-release of radioactive materials, thoroughly criticized NRC's efforts over the past 16 years to do so and advised them to work more sincerely to build public trust and genuinely incorporate "stakeholder" concerns.

Since the National Academy report came out on 21 March 2002, NRC has been planning its next steps.

Current news

On 6 November 2002, the NRC announced that it will proceed to make a rule regarding deregulating or "releasing" nuclear waste from regulatory control. To prevent arousing public concern about radioactive materials being deliberately released from regulations, NRC is referring to the rule as "Control of Solid Materials." The "enhanced participatory" rulemaking is to take three years with a schedule expected out in December 2002 or January 2003.

NRC claims it will seek broad public participation. However, one step of the National Environmental Policy Act, publication of an Advanced Notice of Proposed Rulemaking for public comment and meetings, will be skipped to avoid duplication of previous efforts. Paradoxically, the public meetings that NRC held in 1999 were boycotted by the public and environmental groups because NRC refused to consider keeping all nuclear waste under regulatory control (the only publicly acceptable policy) (3).

At that time the Commissioners had directed the NRC staff to make a rule that "…allows quantities of materials to be released." Now, NRC wants to rely on those meetings and that input as public information on the proposed rulemaking. It seems more likely that they really don't want to hear from the public…the very people that will be exposed to radiation as a result of this policy.

NRC claims it will consider a "broad range of alternatives" including unrestricted release of radioactive waste into everyday commerce, restricted release for specific practices for the first use and requiring licensed disposal. However, the NRC Commissioners directed the staff to "…reiterate the Commission's continuing support for the release of solid material…"(4). So once again we face a rulemaking with a predetermined outcome.

NIRS questions what is "enhanced" about this rulemaking: NRC is cutting off public input, relying heavily on four documents (5) which had nearly NO public input and has already decided to release some contaminated materials.

So, while they were making money based on how much radioactive material they could "recycle," SAIC were making more money setting the levels of "acceptable" exposure from that very practice.

The only question is how much contamination they will decide they can get away with letting out. We may never know what that amount is since it will vary greatly, be applicable to an unlimited number of radioactive waste streams and too expensive to even try to measure.

Interestingly, the industry is building its own detection equipment and developing its own science of radiation detection. This makes it enormously difficult to independently assess.

The NRC's previous efforts to deregulate radioactive "wastes, materials, emissions and practices" were the "Below Regulatory Concern" policies of 1985 and 1990. These were revoked by the US Congress in 1992 due to public opposition and inadequate technical support.

This time the NRC is expending significant staff and contractor time and resources to produce technical reports that claim to be able to estimate the doses to the public from unregulated all the various nuclear contaminated materials that will be unleashed on the public.

If risk or dose based standards are adopted, we will never know how much exposure we receive because they will be neither verifiable nor enforceable. In addition, there is no limit to the number of different, multiple exposures we and future generations will receive because the standards intend to provide across-the-board exemptions for many types of wastes from all kinds of nuclear waste generators and practices.

The contractor NRC hired to produce key technical documents (6) projecting doses from radioactive metals, equipment and concrete, Science Applications International Corporation (SAIC), had to be removed for having a blatant Conflict of Interest. While SAIC was supposedly objectively and scientifically developing "safe" standards for NRC to allow radioactive materials into commerce, personal use items, raw materials and unregulated disposal, they were working for the Department of Energy at Oak Ridge as one of the main contractors for the largest radioactive metal "recycling" contract in the country.

So, while they were making money based on how much radioactive material they could "recycle," they were making more money setting the levels of "acceptable" exposure from that very practice. Even though they were removed from the contract, NRC continues to use the documents they produced during this conflict of interest.

The recycling portion of that contract was halted in the year 2000 when the Department of Energy placed bans on the recycling of volumetric and some surface contaminated metals. The draft Programmatic Environmental Impact Statement that could reverse those bans or make them permanent is now expected in early 2003.

One additional complication is that

the US Environmental Protection Agency (EPA) is reportedly in the process of developing a rule that would exempt mixed (radioactive and hazardous) waste from radioactive regulations so long as it is managed as hazardous waste. An existing EPA conditional exemption allows mixed waste to be treated as radioactive only.

For more information on the NRC's rulemaking the website is: http://ruleforum.llnl.gov/cgi-bin/rulemake?source=SM_RFC&st=ipcr

What you can do
Sign on to the petition and resolutions against release of radioactive wastes on the NIRS web site (www.nirs.org/radrecycle/recyclehome.htm). Get your organizations, local and state governments to sign on or pass their own versions.

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(3) "This level should be based on realistic scenarios of health effects from low doses that still ***allows quantities of materials to be released.*** The rule should be comprehensive and apply to all metals, equipment, and materials, including soil. If problems that would delay completing the rulemaking arise in certain categories of solid materials, then a decision can be made to narrow the scope of the rule."
Exerpted from STAFF REQUIREMENTS - SECY-98-028 - REGULATORY OPTIONS FOR SETTING STANDARDS ON CLEARANCE OF MATERIALS AND EQUIPMENT HAVING RESIDUAL RADIOACTIVITY, June 30, 1998.
(4) SRM Staff Requirements-SECY-02-0133-Control of Solid Materials: Options and Recommendations for Proceeding, October 2002.
(5) American National Standards Institute N13.12 published by the Health Physics Society "Surface and Volume Radioactivity Standards for Clearance, 1999; US Department of Energy Internal Order 5400.5 (and possibly DOE's Environmental Impact Statement apparently intended to reverse the existing DOE ban on recycling some radioactive metals from DOE sites; International Atomic Energy Agency Clearance Recommendations; European Council Directive 96/29/Euratom of 13 May 1996. These documents, with the exception of the ongoing DOE Programmatic Environmental Impact Statement (PEIS), were generated by nuclear promoters without input from the public. The DOE had hired SAIC to do the PEIS but let them go due to the same Conflict of Interest problem that forced NRC to terminate their contract.
(6) NUREG 1640, Volumes 1 & 2, Radiological Assessments for Clearance of Equipment and Materials From Nuclear Facilities.

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TRADEMARKING A NUCLEAR MESS

Two U.S. nuclear corporations have hit upon the idea of mixing two nuclear waste products - contaminated low-enriched uranium and depleted uranium - then calling the resulting mess "natural uranium ore" and giving it a trademark. This is the latest ploy in what might be called "poor man's reprocessing" - the "recycling" of "low-level" nuclear waste by putting it through uranium mills.

(577.5464) WISE Amsterdam - Public opposition to nuclear waste dumps makes it very attractive for the industry to find other ways of dealing with nuclear waste. Since no amount of chemical processing can stop nuclear waste from being radioactive, the nuclear industry tries other methods of reducing public concern.

The latest idea is an attempt to deal with nuclear waste that would be classed as "low-level" except that it contains uranium, so that it remains radioactive for millions of years.

The idea is to mix two types of nuclear waste products - depleted uranium and contaminated low-enriched uranium - and describe the resulting mix as "natural uranium ore". It is still just as radioactive, and it is certainly not natural, but at least it **sounds** less harmful!

Two U.S. nuclear corporations consider this to be such a valuable idea that they have trademarked the resulting product - "USM Ore™ " - and set up a joint venture company to exploit it. International Uranium Corporation (IUC) and Nuclear Fuel Systems (NFS) have set up the new company, "Urizon Recovery Systems, LLC", to produce this "natural" product (1).

Low-enriched uranium that is contaminated with other radioactive materials continues to be a problem for the U.S. Department of Energy (DOE). And while some of the depleted uranium which is left over from uranium enrichment has been made into munitions (as used in the Gulf War and in the former Yugoslavia), most of it remains as waste.

By combining these two nuclear waste products in such proportions as to simulate uranium ore, it can be processed in a uranium mill as if it had been dug out of the ground. However, the result of this is that the contamination present in the DOE material will mostly end up in the uranium mill tailings pond, posing a potential environmental threat. Part of it will remain in the yellow cake produced by the uranium mill, increasing its radioactivity and possibly even contaminating uranium conversion and enrichment plants.

While this "USM Ore™" approach is new, the processing of radioactive waste and by-products in uranium mills has been carried out for some time (2). Indeed, the White Mesa Mill in Utah, where this "trademarked" mixture is to be sent, is already processing "alternate feed material" from various sources (3).

Taxpayer dollars

The NFS plant in Erwin, Tennessee, where the mixture is to be produced, is situated in Unicoi County, near to one of the sites rejected for the proposed LES uranium enrichment plant after local opposition (4). The plant is also involved in a project to blend down bomb-grade uranium for use as fuel in nuclear power stations – a project that, ironically, would reduce demand for uranium from other sources such as "USM Ore™" (5).

However, the key to the new project is taxpayer funding. NFS spokesman Tony Treadway was quoted in *The Greeneville Sun* as saying that the project cannot go forward unless the DOE provides funding for a "small-scale" feasibility test of the conversion process (6).

References:
(1) IUC news release, 14 November 2002
(2) www.antenna.nl/wise/uranium/umopwm.html
(3) *WISE News Communique* 551.5295, "Alternate feed material: Putting radwaste through uranium mills".
(4) *WISE/NIRS Nuclear Monitor* 571.5426, "Louisiana Energy Services tries again in Tennessee" and 572, "In Brief".
(5) http://www.antenna.nl/wise/uranium/epusa.html#NFSERWIN
(6) *The Greeneville Sun*, 18 November 2002

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A TURN FOR THE WORSE FOR BANDAZHEVSKY

Things are not looking good for Professor Bandazhevsky, a renowned researcher into the consequences of the Chernobyl disaster, who remains in prison in Belarus. Bandazhevsky's health has taken a turn for the worse. Continuing human rights abuses in Belarus have led the EU to impose a travel ban on President Lukashenko and seven government ministers.

(577.5465) WISE Amsterdam – Prof. Bandazhevsky was sentenced on 18 June 2001 to eight years' imprisonment (1). He was convicted of accepting bribes from students seeking admission to the Gomel Medical Institute of which he was the rector. However, the real motivations behind Prof. Bandazhevsky's prosecution are connected to his research into the effects of the Chernobyl disaster on the people of Belarus.

Amnesty International has adopted Bandazhevsky as a Prisoner of Conscience (2), and this summer it seemed that things were getting better for Bandazhevsky, (3). However, this assessment now seems to have been prematurely optimistic. Although he was moved into better accommodation in the prison, he now fears for his life because he shares a prison cell with an assassin.

Recently, the authorities have allowed an exceptionally long visit - by his mother (3 days) and two daughters Olga and Natalia (2 days). However, they found him to be very ill, with a permanent headache and chest pain, he has no appetite and must force himself to eat.

He said that his jailers made him sign "a bad paper": a declaration that he doesn't want to see visitors except his family - no human rights campaigners or politicians. Nevertheless, he still has visits from Mr. Konopliov, a member of the Belarusian Parliament (4).

Meanwhile, Belarus continues to be isolated from the international community. Recently, all of the EU countries except Portugal have imposed a travel ban on Belarusian President Lukashenko and seven government ministers, in protest at the country's poor human rights record (5).

What you can do

When his family asked him "what can people do to help?" Bandazhevsky said, "try to obtain an independent assessment of my health".

So, people are now asked to write to the President or Prime Minister of their own country, asking him or her in turn to ask President Lukashenko to allow the visit of a independent physician (Red Cross, Médecins du Monde, etc), and to grant immediately an "individual amnesty" (note: not a "pardon", which is less likely to be granted) for Bandazhevsky, since otherwise Belarus risks losing a valuable scientist.

A new web site, in French, has been set up by the Committee for Yuri Bandazhevsky: www.comite-bandajevsky.org

References:
(1) *WISE News Communique* 551.5289, "Belarus: Bandashevsky sentenced to 8 years in Gulag"
(2) *WISE News Communique* 553.5308, "Belarus: Bandazhevsky adopted as prisoner of conscience"
(3) *WISE/NIRS Nuclear Monitor* 570.5421, "Belarus: a glimmer of hope for Prof. Bandazhevsky?"
(4) E-mail from Wladimir Tchertkoff, 7 November 2002
(5) BBC, 19 November 2002

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BOOK REVIEW: "DOUBLE OR QUITS?"

The nuclear power debate is one of the most polarized issues facing society. "Double or Quits? The Global Future of Civil Nuclear Energy" is an attempt to present both sides of the argument, without choosing one or the other, but at the same time to investigate what is needed to "keep the nuclear option open".

The book arises from the Sustainable Development Programme (formerly known as the Energy and Environment Programme) of the UK's Royal Institute of International Affairs (RIIA). The RIIA, an institute with significant influence amongst decision-makers, has also hosted international workshops on the nuclear energy debate at its London headquarters last year as part of the same program.

The authors of the book have mixed industry/academic backgrounds. Malcolm Grimston formerly worked as an information officer for the UK Atomic Energy Authority, then subsequently at Imperial College London, while Peter Beck has worked for nearly 40 years for Shell.

Has the book succeeded in presenting all sides of the nuclear debate? Some reviewers have concluded that it has, but it seems that there is a definite, sometimes subtle pro-nuclear bias, at least in parts of the book. This is seen in statements that "the anti-nuclear movement is raising fears" while "the nuclear industry and its supporters try to find answers" to the problems of what to do with nuclear waste (p.125).

Since "keeping the nuclear option open" involves tax breaks and other government subsidies, it could be argued that the book cannot be neutral since its recommendations require giving yet more taxpayers' money to the nuclear industry.

The book also has other deficiencies. The book states the nuclear industry's view (as expressed by the World Nuclear Association's slogan "Energy for Sustainable Development") that nuclear energy is sustainable, without pointing out the obvious problem that it relies on limited uranium resources. The effects of the terrorist attacks of 11 September 2001 on the nuclear industry are briefly mentioned in various places in the book but the issue is not examined in detail. Finally, the lack of an index makes it hard to use the book for reference.

The effect of all this is that, rather than providing a "balanced approach", the book describes the nuclear debate in terms that tilt the balance slightly in favor of the nuclear industry. This "tilting the balance" includes recommending yet more tax breaks in order to "keep the nuclear option open".

Double or Quits? The Global Future of Civil Nuclear Energy. **Earthscan, 2002.**
(ISBN 1 85383 908 6 hardback, 1 85383 913 2 paperback.)
Reviewed by: WISE Amsterdam

IN BRIEF

UK: Workers exposed to radiation. Twenty workers at the now-closed Dounreay reprocessing plant in Scotland were exposed to radioactive dust particles. 18 had particles on their shoes, but two had dust on their skin, and had it scrubbed off. A spokesman said that there are about ten incidents per year at the plant in which workers get radioactive particles on their skin.
Reuters, 14 November 2002

Chechnya radiation disaster. Chechnya's chief sanitary doctor Taisiya Mirzoyeva has said that no measures are being taken to deal with the aftermath of a "radiation accident" at a former chemical factory in Grozny. "Radiation levels in two places exceed the admissible level more that 800 times", she said. She also said that about 40% of Chechnya is in the zone of an environmental disaster. During the war in Chechnya, NGOs warned that an environmental catastrophe was taking place (see *WISE News Communique* 521.5107, "Chechen and Georgian NGO's warn against ecological catastrophe in Chechnya").
Interfax, 19 November 2002

Russia admits missing uranium. Yuri Vishnyevsky, head of Russia's nuclear regulatory agency Gosatomnadzor, has admitted that he does not know how much nuclear material has gone missing. He says he is aware of cases in which grams of weapons-grade uranium or kilograms of reactor-grade uranium have gone missing. He said that uranium most often goes missing at two nuclear fuel plants: Elektrostal in the Moscow region and Novosibirsk in Siberia. He added that while security at Russian nuclear facilities has improved since 11 September 2001, "it still has not reached perfection".
CBS News, 15 November 2002

Floating nuclear power plants. Russia is talking once again about building floating nuclear power plants, based on reactors designed for nuclear icebreakers, which can be

moored in remote areas of Russia's Far North to provide power. The Malaya Energetika company says that it will begin construction of the first of these at Severodvinsk next year. However, back in 1996 they claimed that construction was underway and the plants would be ready by 2001 (see *WISE News Communique* 456.4525, "Russia: World's first floating nuclear plant").
News24.com, 19 November 2002

Hiring freeze for nuclear security. The US National Nuclear Security Administration has stopped hiring new employees, largely because of budget problems. Its 18 November announcement came less than a week after the FBI issued an alert warning that nuclear facilities were at special risk of terrorist attack. Democrats immediately criticized the Bush administration for failing to provide adequate funding for countering terrorism. The Office of Transportation Safeguards, which is responsible for the security of nuclear transports, has an exemption so that it can continue to hire staff.
***New York Times,* 19 November 2002**

Taiwan compensation. Aborigines on Taiwan's Orchid Island have decided that they would like to split amongst themselves the NT$220 million (US$5.9 million) compensation fund offered by Taipower for using their land to store low-level nuclear waste. Each of the 3,000 aboriginal residents would receive about NT$70,000 (US$1900). Taipower, however, rejects this, saying that the fund must be used for "welfare" projects such as infrastructure development. Taipower has promised to remove the waste but has been unable to find new sites to store the waste.
***The China Post,* 9 November 2002**

Billionaire turns activist. Petter Stordalen, a Norwegian property developer and chief executive of Choice Hotels, has chained himself to a bridge next to the UK's Sellafield nuclear complex. The bridge holds part of a pipe through which Sellafield discharges its waste, and Stordalen, together with Norwegian MP Karl Anton Svendsen and Frank Hugo Storelv from the environmental organization Neptune, are there to protest against Sellafield's radioactive discharges into the sea.
***The Guardian*, 20 November 2002**

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WISE/NIRS NUCLEAR MONITOR

The Nuclear Information & Resource Service was founded in 1978 and is based in Washington, US. The World Information Service on Energy was set up in the same year and houses 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 issues.

The *WISE/NIRS 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 and a Ukrainian version is published by WISE Ukraine. The *WISE/NIRS Nuclear Monitor* can be obtained both on paper and in an email version (pdf format). Old issues are available through the WISE Amsterdam homepage: www.antenna.nl/wise.

Receiving the WISE/NIRS Nuclear Monitor

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