

NUCLEAR MONITOR

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EUROPE URGED TO UNITE AGAINST NUCLEAR POWER

Some 50 organizations and movements from over 20 European countries launched, on Chernobyl Memorial Day, a yearlong European campaign to collect 1 million signatures against nuclear power.

(609.5601) WISE Amsterdam – On the 18th anniversary of the world's worst nuclear disaster to date, campaigners from nine of the European petition campaign's initiating organizations joined Finnish anti-nuclear activists for the launch in Helsinki.

The aim of the petition is to demand the exit of nuclear power in all Europe and activate mass engagement on the issue. Once completed, the petition will be used to convince European countries to take the following measures:

- stop and/or prevent the construction of new nuclear power plans and facilities in the European Union
- launch a plan to abandon nuclear with the EU
- invest massively in energy efficiency and the development of renewable energies

- repeal the Euratom Treaty which massively supports nuclear power in Europe

Finland still has a choice

A delegation of experts, activists and politicians from nine of the European petition campaign's initiating organizations, including WISE Amsterdam, visited Finnish ministries on 26 April to express strong condemnation for the "decision-in-principle" to grant a permit for the construction of the experimental EPR prototype that would become Finland's fifth nuclear reactor. (See *WISE/NIRS Nuclear Monitor* 596-598 "European Nuclear Threats: Old and New")

As the ministers were unavailable, the groups were received at the Prime Minister's office by under-secretary of state, Mr. Risto Volanen, at the Ministry of Trade and Industry by the chief of the energy department, Mr.

Taisto Turunen, Mr. Markku Nurmi at the Ministry of Environment and at the Ministry of Foreign Trade and Industry, Ms. Satu Mäki, special assistant to the minister.

Each meeting began with a request from the delegation for a minute of silence to remember those killed and injured by Chernobyl.

The organizations had sent complaints to the Ministry of Trade and Industry urging it to reject the permit application and each ministry visited was presented with a set of supporting documents from the organizations. Ministry officials were of course invited to sign the petition against more nuclear power in Europe but all refused.

The delegation were fiercely critical of the government's apparent view that the regressive 2002 parliamentary ruling had to be rubber stamped no matter what and made the point that the permit application could still be rejected on safety grounds, making several arguments in support.

Xanthe Hall from the German section of the International Physicians for the Prevention of Nuclear War (IPPNW) drew attention to a report published in December on the EPR's safety deficiencies but was told that the information it contained was unfamiliar despite the fact that it had been sent to the Ministry for Trade & Industry upon publication. The preliminary assessment was also

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included in the documents presented to the ministries. (1)

The group strongly urged officials to actively support more investment in renewable energy resources, take steps to reduce energy consumption and promote energy efficiency to meet Finland's energy demands.

Although some 11 of the 18 current ministers had voted in 2002, before they came into government, to reject the calls for a fifth reactor, ministry officials visited gave the impression of resignation to the construction of an EPR prototype in Finland. The group was dismayed to hear officials speaking of a democratically taken decision that had to be "respected and implemented".

Again, the point was made that the vote in parliament had been on whether to prevent the nuclear industry building a new nuclear power plant or not and did not mean that the permit application *had* to be approved – the government still has a choice and should exercise its power to reject the scheme.

The usual invalid arguments for the EPR scheme, from suggesting that nuclear power would help Finland reach its Kyoto targets to claiming that Finland had no viable alternatives, were made by officials. Mr. Volanen was admonished for the first [Kyoto] claim, which was later retracted in a backhand manner, and the latter could be perceived as especially ridiculous given that Finland's rich resources (biomass, wind and water) are well

documented and proven – even the country's environment ministry had published a report in 2003. (2)

When questioned on the escalating costs of the EPR scheme, Mr. Volanen explained that this was not of concern to the government as the financial resources at risk belonged to private companies. He went on to say that it was the companies that would become bankrupt should costs continue to rise not the public purse. Unfortunately, the same cannot be said for the Finnish people who will undoubtedly be forced to fund this scheme through increased energy bills.

At the Ministry for Foreign Trade and Industry, Satu Mäki was keen to inform us of Finland's concern with safety standards at Russian nuclear power plants and that it was engaged in a program to raise standards. Under-secretary of state Volanen had also expressed concern with NPP safety in Russia, claiming that that was one reason why Finland did not want to import nuclear electricity from Russia but would instead look to building a fifth reactor.

Both Volanen and Mäki were at a loss when questioned about the safety of the EPR prototype and Mäki in particular appeared surprised to learn from Jean-Yvon Landrac of Réseau "Sortir du nucléaire" that the people of Le Carnet in France had already rejected an earlier attempt at constructing the untested EPR prototype. (See *WISE/NIR Nuclear Monitor* 478.4744 "France: the end of the Carnet project, finally" and also 474.4697, 471.4666 & 467.4642)

On the question of why the Finnish people had not been offered a referendum on the new nuclear power plant despite opinion polls at the time showing that the majority favored this, Ms. Maki said that there was no strong tradition for referenda in Finland and also made the "democratic decision" argument. She said that the public were aware of politician's stance on nuclear and had the opportunity to vote in the general election – the fact that many of those elected had stood

as anti-nuclear before and changed only after the election was not commented on. She did however admit that there had been split on the nuclear issue along regional lines and between the generations in the Center Party, which she belongs to, but again seemed resigned to the dim view that the 2002 decision had to be "respected".

The group visiting the environment ministry was told that the problem of how to deal with nuclear wastes was now perceived as "solved". Finland will not export wastes but will instead store wastes on-site but given that Finland has no dry mountains, concern existed that wastes could leak into ground water.

Mr. Nurmi admitted that Finland does possess sufficient resources for renewable energy but that there was strong opposition from the wood industry which was unwilling to use wood for energy purposes when more profit could be gained from other wood-related industries. He expressed sorrow that Finland, as the country in Europe with most resources for renewable energy, should choose to build the EPR instead of investing in new technologies for sustainable energy.

Public engagement required

During the course of the day [26 April], we participated in a street action, urging the public to sign the petition – collecting over a thousand signature within hours – and explaining the reasons for our opposition to the permit application for the EPR and all nuclear worldwide. People appeared surprised to learn that their government would consider making the country the guinea pig for the Franco-German EPR scheme which neither of the developing countries is willing to test within its own borders. Until recently Finland was the only country willing to take the enormous risk of building the EPR but now France is also joining them.

The media in Finland are apparently uninterested in the dangers of a fifth reactor to the extent that negative

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25 YEARS AGO

What happened 25 years ago? We go back to news from our 1979 WISE Bulletin, comparing anti-nuclear news "then" and "now".

Then

In *WISE Bulletin 5* we reported on a demonstration against uranium mining in Australia: "On April 6th and 7th, major rallies took place in all major Australian cities. [...] Organisers say this is the largest ever anti-nuclear demonstration in Sydney." (*WISE Bulletin 5*, May/June 1979)

Now

Uranium ore was discovered in Australia in the 1890s and was initially mined as a source of radium. Primarily intended for the U.S. and U.K. weapons programs, mining for the element uranium began in the 1950s and was followed in the 1960s with mining for civil nuclear energy. Australia's uranium is exported to the U.S., Canada, Japan, South Korea and the European Union countries. (*Uranium Information Center Issues Briefing*, February 2004)

Uranium mining is polluting, costly and negatively affects aboriginal landowners whose local environment is threatened by high levels of radioactivity contained in uranium tailings. Leaks have resulted in the contamination of the areas surrounding the mines. Mining is capital-intensive, which means low employability per invested dollar, and in the 1990s uranium prices dramatically fell below actual production costs. Sacred sites of cultural and spiritual significance to aboriginal landowners are regularly destroyed. (*Uranium Mining in Australia, Movement against Uranium Mining*, July 1991)

Studies have shown that the living conditions of aborigines have not been improved by mining activities as was claimed by the industry. Employment levels for aboriginals are extremely low as are their social circumstances. According to the 1976 Aboriginal Land Rights act, the traditional owners have the right to veto commercial activities on their territories. But in 1978 the federal government made an exception for uranium mining. (*Vergeten Volken [NL]*, June 1999)

In 1983 the Labour Party won government elections and introduced the "Three Named Uranium Mines" policy. This policy limited mining to the Ranger, Nabarlek (now closed) and Olympic Dam (Roxby Downs) mines with the intention of eventually phasing out uranium mining in the long term. In 1996, however, a Liberal-National coalition came to power and abandoned the three mines policy.

The liberal government also allowed the operation of three new mines: Beverly, Honeymoon and Jabiluka. Suggestions for more new mines have been made at six other locations. (*Sustainable Energy and Anti-Uranium Service Inc.*, 4 January 2004)

Beverly began operation in late 2000 but following a trial operation, the Honeymoon mine lies idle as financing remains unclear. (*Sustainable Energy and Anti-Uranium Service Inc.*, 4 January 2004; *WISE/NIRS Nuclear Monitor* 600, 19 December 2003)

In 1998, the federal government approved mining at Jabiluka, known for being one of the world's biggest uranium reserves. The mine is located near a unique nature park (Kakadu National Park) and the proposal raised strong protest from the traditional landowners. Following much protest, the traditional owners finally won. Although exploitation had begun on a small scale, the uranium ore was returned to the mine and the mine was cleaned up in 2003. In April 2004 the Northern Land Council, acting on behalf of traditional owners, adopted an agreement with owner ERA that gave them the right to veto future development of the mine. (*Vergeten Volken [NL]*, June 1999; *The Age*, 22 April 2004)

opinions or reports are rarely covered and those speaking out against the scheme are usually portrayed as lunatics.

That new nuclear power plants are not in the public interest or in line with any rational or progressive political energy plans is not a popular viewpoint in Finland or any country where the nuclear lobby is strong. The international anti-nuclear movement needs to mobilize on a large scale to try to prevent the industry and ill-advised politicians from instituting a

relapse of such dangerous technology.

Russian protest

In support of Russian anti-nuclear organizations, much of the delegation had also attended a "non action" in St. Petersburg on 24 April after a request to demonstrate outside the Sosnovy Bor reactor, the world's oldest Chernobyl type reactor currently, had been rejected as part of Russia's new anti protest laws. The group instead made a symbolic protest at the Nevsky Project in St. Petersburg and was well received by the Russian people, some

of who joined the protest. Earlier, the delegation had met with the mayor of St. Petersburg who was presented with a gift of bread and fruit – a Russian symbolic act.

The visit was to promote the signature campaign and also to express serious concern about the Russian government's plans to:

- prolong the operation license permit at Sosnovy Bor
- allow the temporary nuclear waste storage at the Leningrad NPP to continue – situated just 90 meters

from the Baltic Sea coast and containing radioactivity corresponding to near 50 Chernobyl accidents
let harbors in Ust-Luga and Vysotsk be used for transports of radioactive material

(To add your support for the petition, visit www.atomstopp.com or www.antenna.nl/wise)

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- (2) *Finland's Natural Resources and the Environment 2003*
- (3) Joint press releases (Réseau "Sortir du nucléaire", IPPNW Germany, Atomstopp International, WISE Amsterdam, Aktionsbündnis CASTOR-Widerstand, Green Party of Sweden, Liberale Demokraten

party Germany, Peoples Campaign against Nuclear Power/Weapons Sweden, Women for Peace Finland, No more nuclear power movement Finland & Women against nuclear power Finland), 25 & 26 April 2004

(4) Statements of opposition to EPR from WISE Amsterdam, 26 April 2004; Aktionsbündnis CASTOR-Widerstand Neckar-westheim, 17 April 2004, & Ecologistas en Acción Spain, 21 April 2004.

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HUNGARY'S NUCLEAR LOBBY OUTSIDE PUBLIC ARENA

Of the nuclear countries joining the EU as new members, Hungary holds the unique and dubious honor of being the only one without ostensibly open public debate on new nuclear power stations.

(609.5602) WISE Czech Republic - The nuclear lobby continues to maintain a tight grip on Hungarian energy policy and the position of Hungary's nuclear power stations at Paks remains strong. Events on the evening of 10-11 April 2003 when a serious incident measuring level 3 on the INES scale occurred could have impacted on its standing but still, one year on, Paks's reputation remains untarnished and public debate non-existent. (See *WISE/NIRS Nuclear Monitor* 586.5507 "Serious incident at Hungarian Paks-2 reactor") In fact, preparations for the August restart of block 2 continue at full speed.

Hungary has four VVER 440/213 reactors, situated near the town of Paks, which began operation between 1982 and 1987 with projected life times of 30 years. The state power company MVM currently owns Paks but according to Ada Amon of Hungary's Energia Klub, discussions are in progress regarding the privatization of MVM or parts of it.

The Hungarian government is currently developing a new energy plan to be revealed this summer in line with EU policy requiring member states to produce updates on long-term energy policy every two years.

Two thirds, or about 6.000 MW, of electricity generation capacity needs to be replaced before 2015 when the lifetimes of coal powered capacity

ends. If Paks' lifetime is not extended an extra 2.000 MW replacement would be required for its reactors and would have to close between 2012 and 2017.

In early April, WISE Czech Republic interviewed three leading Hungarian anti-nuclear activists, Andras Perger and Ada Amon of Energia Klub and Roland Csaki of Greenpeace Central Europe, who highlighted what they perceive to be the five main issues concerning Hungary's nuclear reality;
*The aftermath of last year's incident at Paks 2

*Life time extension and capacity upgrading of the Paks reactors

*Spent fuel

*The market position of nuclear power and the fact that Paks' capacity is flexibly used

*Safety of VVER 440 reactors against terrorist attacks

Incident update

Last year, Paks-2 had a major incident, in which fuel rods became overheated during a clean-up operation in an intermediate storage pool. The investigation into the incident is almost completed and according to Roland Csaki, the problems appeared to be mainly systemic, meaning that no conscious operation mistakes were made.

Framatome, who conducted the clean-up and supplied equipment for the process, and the insurance consortium Atompool have offered a settlement of

12 billion Forint (around US\$ 50 million) in an out of court settlement.

However activists suggest that these funds not only have to cover the costs of repair, but also the outfall of production, which for 2003 was calculated on US\$ 63 million. Furthermore, it is estimated that additional outfalls in 2004 will amount to another US\$ 60 million, however MVM's 2004 budget fails to indicate a loss since Paks-2 production was excluded.

Repairs have been proving more complicated than anticipated. In an earlier assessment, Russian nuclear fuel company TVEL had indicated that its preferred solution would be to stabilize the fuel and leave it alone. Since the Hungarian government no longer wishes to deal with Framatome, it chose TVEL and Russian contractor Hydrosres, who now claim that the damaged fuel can be removed from the pond for US\$ 4.5 million. There are strong indications, that this low price quote was made in an attempt to encourage Paks to stay with current fuel provider TVEL instead of changing to Westinghouse/BNFL which is now trying to move into the market of VVER 440 fuel.

Moreover, the strong traditional links between TVEL and Paks probably had some influence – the present owner of TVEL's representative in Hungary is a former Paks director. TVEL is

currently building a 1:1 scale model of the storage pond in Russia in efforts to discover the best method of removing the fuel. If TVEL does indeed succeed in removing the fuel, the question of what to do with it remains.

Capacity increase, flexible capacity use and lifetime extension

TVEL is also involved in the discussion concerning the capacity increase of Paks reactors, which was already increased to 480 MW by optimizing the turbine and second circuit. Plans have been made for a further increase to 510 MW – a level already reached at the Finnish plant at Loviisa.

However, the jump at Loviisa was achieved due to the low temperature of incoming cooling water, which is not the case for Paks, which uses the warmer waters of the Danube. Instead TVEL and Paks propose an optimization of the fuel core, which TVEL has experience with in Russia.

Such investments in capacity increase can only be viable if Paks's original lifetime of 30 years is further extended. The government's anticipated energy plan proposes that the Paks reactors serve an additional 20 years. The final decision is expected in 2005.

The market position of the Paks reactors differs somewhat to surrounding countries. Czech and Slovak reactors are run to deliver maximum capacity constantly and modified coal and hydro-capacity meet changes in demand whereas in Hungary, Paks is used to balance out adjustments between capacity and demand.

Perger, Amon and Csaki suggest two reasons for this; the guaranteed bulk price for delivered base load from the country's coal generators and Hungary's long term import contracts for base-load electricity. In order to meet changes in demand, capacity of Paks is regularly run down, technically leading to a larger strain on the reactor vessel.

The combination of flexible capacity and increased top capacity poses questions on the quality of the reactor

vessel in the long term and appears to conflict with the concept of life time extension.

Nuclear waste

In early April, Ada Amon and Russian anti-nuclear activist Vladimir Slyviak wrote an open letter to the Hungarian government urging it to reject a deal to resume the transport of spent fuel from Paks to the reprocessing facilities in Mayak, Russia. If the Hungarian government had wished to make such a deal, it would have had to do so before Hungary's accession to the EU. Government sources in Russia have reportedly stated that the deal has been canceled and that the spent fuel will remain in interim storage at Paks.

Hungary is working on its own nuclear waste storage facilities but there is as yet no clarity on possible locations. Greenpeace's Csaki mentioned that a public tender was issued in 2003 for an underground research facility for waste storage in a disused uranium mine near Pec and that public opposition in the region was small given the population's relationship with uranium mining.

VVER 440s as terrorist targets

Another issue not being discussed in public is that of the safety of VVER 440 reactors against possible terrorist attacks. The design does not include a concrete containment that could survive, for instance, the impact of a small aircraft but two reactor blocks are instead located in one building with an ordinary thick roof. Safety has to be delivered by the strength of the reactor vessel and piping itself, which makes Paks vulnerable to terrorist attacks involving large aircraft or rocket propelled bombs.

Hungarian nuclear power in an international market

Hungary was a net importer of electricity in 2004, mainly due to Paks-2's outfall, importing almost 10% of its annual capacity from surrounding countries. The approaching energy plan discusses life time extension of Paks combined with a partial replacement of coal capacity and to increase imports, Hungary is looking

to the growing nuclear capacity of the Czech Republic, Slovakia, Romania and Bulgaria, for which an increase in cross connection capacity would be required. Efficiency and renewables are mentioned but without substantial plans although Hungary has a target of 6% renewables by 2010 that many seriously doubt can be achieved.

NGO resistance

Hungary is the only country in Central Europe with an NGO specializing on energy issues that also deals with nuclear power: Energia Klub. Greenpeace in Hungary works on energy issues, including nuclear, on an ad-hoc basis, but there are plans for a larger Central European anti-nuclear campaign.

In addition, Hungary has some NGOs that see it as their duty to propagate nuclear power, like a group of physics students and Paks employees called FINA (Youth promoting nuclear energy). They follow the successful model of the Czech South Bohemian Fathers using educational activities to spread pro-nuclear propaganda into classrooms under the veil of objective information.

Hungary's nuclear lobby is strong and enjoys strong ties with both the present socialist government and the liberal opposition. It is a nuclear power nation to be reckoned with in the ongoing debate about Europe's energy future.

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YUCCA DOGGED BY WORKER ILLNESS & PROJECT MISMANAGEMENT

In recent months, the U.S. Dept. of Energy's (DOE) Yucca Mountain Project has been slammed by technical criticisms and even accusations that DOE's haste to open the dump has led to sicknesses and even deaths among its workers, long before any high-level radioactive waste has been transported to the Nevada site. Such tremors (not to be confused with the earthquakes!) forewarn of major delays, skyrocketing costs, and further threats to health and the environment.

(609.5603) NIRS - In November, the U.S. Nuclear Waste Technical Review Board (NWTRB) – an independent panel of scientists and engineers established by Congress and appointed by the President to oversee the technical validity of DOE's work at Yucca – warned that the repository's current high-temperature design would lead to serious corrosion of the waste burial containers.

During the 1,000-year-long "thermal pulse" ("The period during which temperatures would be above boiling..."), calcium and magnesium chloride salts abundant within Yucca's tunnels would "deliquesce," dissolve gradually and become concentrated, highly corrosive liquid brines by attracting and absorbing moisture from the humid air within the mountain.

NWTRB cautioned that "...under conditions associated with the DOE's current high-temperature repository design, widespread corrosion of the waste packages is likely to be initiated during the thermal pulse. Once started, such corrosion is likely to propagate rapidly even after conditions necessary for initiation are no longer present. The result would be perforation caused by localized corrosion of the waste packages, with possible release of radionuclides." (1)

Dr. Paul Craig, who had served on the NWTRB since 1997, resigned in January so that he could speak out more freely against DOE's repository design (see "In Brief," *WISE/NIRS Nuclear Monitor* #604, 27 February 2004).

"My reading is the guys at the top at the Department of Energy are in such a rush to get approval, but the science is weak. They're rushing ahead. That's a

bad idea," Craig stated. He concluded "Clearly, the Department of Energy needs to change the (repository) design because they do not have the confidence of the scientific community," which could cause many years of delay and add substantially to the dump's price tag. (2)

In early 2004, a scandal erupted at Yucca Mountain when former workers who had drilled the 5 mile (8 km) long, 25 feet (7.6 m) in diameter "Exploratory Studies Facility" between 1992 and 1997 alleged they had developed potentially fatal lung diseases due to exposures to toxic dusts in the tunnel.

A 1991 Los Alamos National Lab study had warned that worker inhalation of silica and zeolite dusts, abundant in Yucca's rock, could cause "asbestos-like lung diseases." But scientists urged that water not be used to suppress dust, fearing disruption of their experiments on groundwater flow through Yucca. For years, workers were offered – but not even required to wear – poorly fitting paper "painters" masks to cover their mouth and nose.

In 1994, the dust hazard was officially documented but it took until 1996 for DOE to provide "more advanced respiratory protection equipment," which whistle-blowers allege still did not filter out cancer-causing, microscopic mineral fibers called "erionite". DOE has sent letters to 2,400 current and former Yucca workers and visitors who may have been exposed to the potentially deadly dusts, and is offering free silicosis health screenings. (3)

Judy Kallas, a former industrial hygienist at Yucca, has alleged that her supervisor ordered her to falsify data

about the extent of toxic dust contamination in the tunnel. "I said what they were telling me to do was illegal. Then they reminded me that the only reason I was there was because DOE required somebody with my credentials to be there," Kallas testified. A DOE Inspector General investigation is underway into the data falsification allegation.

In mid-March, whistle-blower Gene Griego filed a class action lawsuit against current Yucca contractor Bechtel-Science Applications International Corporation, tunnel-drilling sub-contractor Kiewit Construction of Nebraska, as well as former Yucca contractor TRW. He explained "I want some justice and to get medical attention for all these people who are sick now or will become sick. I want everybody who was involved in this thing held accountable."

Griego now suffers from chronic obstructive pulmonary disease. He testified on March 16th before U.S. Senator Harry Reid of Nevada. Reid's own father, a Nevada miner, suffered from occupational silicosis. Griego paused to compose himself before concluding, "I hope out of our meeting today that DOE and its contractors are held accountable for their actions." There are allegations that some former workers have already died from their Yucca-induced lung ailments.

Reid said, "It seems the Department of Energy has once again risked health and safety to push through the Yucca Mountain project. They are trying to sell us a bill of goods that the project is safe... Yucca Mountain workers have contracted a fatal illness because DOE wasn't concerned with safety precautions..." Reid said what had

occurred was "criminal," and compared the disregard of DOE and its contractors for workers' health to the Atomic Energy Commission's instructions to Nevadans and Utahans in the 1950's to simply use a broom to brush off radioactive fallout from nuclear weapons testing. "There is no reason for silicosis," Reid concluded. "It's totally preventable." (4)

Regardless, DOE still confidently predicts it will submit its license application to the U.S. Nuclear Regulatory Commission (NRC) for a construction permit for the Yucca repository by the end of this year. But on April 13th, NRC reported on the quality (or lack thereof) of technical information DOE plans to use in its application. NRC reviewed DOE documents on corrosion of waste burial container outer barriers, degradation of irradiated nuclear fuel's "waste form," and Yucca burial tunnel deterioration.

NRC concluded "...if DOE continues to use their [sic] existing policies, procedures, methods, and practices at the same level of implementation and rigor, the license application may not

contain information sufficient to support the technical positions in the application. This could result in the NRC issuing a large volume of requests for additional information in some areas, which could extend NRC staff's time for review and could prevent the NRC from making a decision regarding a construction authorization to DOE within the three years required by law (with a possible extension to four years)..." (5)

NRC failed to explain why such shortcomings by DOE would not result in the NRC rejecting the Yucca operating license outright. NIRS intends to intervene against Yucca's licensing in the NRC process.

On April 30th, the U.S. General Accounting Office (GAO) – Congress's investigative arm – reported back to Nevada's U.S. Senators Harry Reid and John Ensign that "Persistent Quality Assurance Problems Could Delay Repository Licensing and Operation" at Yucca. GAO had reported quality assurance problems at the Yucca Mountain Project as far back as 1988.

GAO concluded, "Despite working

nearly 3 years to address recurring quality assurance problems, recent audits and assessments have found that problems continue with data, models, and software, and that management weaknesses remain... Entering into the licensing phase of the project without resolving the recurring problems could impede the application process, which at a minimum could lead to time-consuming and expensive delays while weaknesses are corrected and could ultimately prevent DOE from receiving authorization to construct a repository. Moreover, recurring problems could create the risk of introducing unknown errors into the design and construction of the repository that could lead to adverse health and safety consequences. Because of its lack of evidence that its actions have been successful, DOE is not yet in a position to demonstrate to NRC that its quality assurance program can ensure the safe construction and long-term operation of the repository." (6)

Despite such setbacks, DOE is still rushing full steam ahead. On April 8th, DOE published its long-awaited "Record of Decision (ROD) on Mode of Transportation and Nevada Rail Corridor for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain."

DOE has officially decided to use "mostly rail" for shipments to Yucca, and to build a 319 mile (513 km) railway from Caliente (which, ironically, means "hot" in Spanish!) northeast of Las Vegas, around the Nellis Air Force Base bombing range and the Nevada nuclear weapons Test Site, to Yucca Mountain. DOE has not backed off from its earlier proposal to use barge shipments on the Great Lakes, rivers, and seacoasts to haul massive rail-sized casks to train lines from reactors that lack rail access.

Because DOE cannot begin the 6 year long, billion dollar new rail line construction in Nevada until it has its Yucca license from NRC, DOE has proposed "piggy-backing" truck-sized casks on train cars to Nevada. There they would be off-loaded onto semi-

KHAN, URENCO AND PROLIFERATION

Greenpeace International has published a new report on the relationship between Urenco's uranium enrichment and the proliferation of nuclear weapons. *A.Q. Kahn, Urenco and the proliferation of nuclear weapons technology* is written by Henk van der Keur (Laka Foundation), Karel Koster, Frank Slijper (Campaign against Weapons Trade) and Joop Boer.

The 40 page report gives an extensive reconstruction of Khan's work at the Dutch Urenco branch, the theft of centrifuge designs and his connections to European companies and persons (see *WISE/NIRS Nuclear Monitor* 603.5575: "Khan, the Dutch connection"). One chapter deals especially with his personal network, set up during his time in Europe. One of these contacts, Dutch businessman Henk Slebos, was frequently mentioned in connection to Libya's

secret nuclear weapons program over the past months.

The report also gives an overview of Urenco's history and concludes that Urenco's centrifuge technology ended up in Pakistan, Iraq, North Korea, Iran and Libya through espionage. The Non-Proliferation Treaty (NPT) and international relations are subjects of the last chapter. The Urenco case shows the ambiguity of a "non-proliferation" treaty that also includes the promotion of nuclear energy. Attempts to realize disarmament are on the other hand also undermined by other political relations between official nuclear weapon states and 'illegal' nuclear weapon states (U.S. – Pakistan; Russia – Iran).

The report can be found through a link at the website of Laka Foundation (www.laka.org/teksten/khan.html).

trucks and driven to Yucca until the rail line was finished. State of Nevada Agency for Nuclear Projects transport consultant Bob Halstead has responded that a truck-sized container would have failed (potentially releasing catastrophic amounts of radioactivity) after just a few hours in a fire as hot as the July 2001 Baltimore train tunnel fire. (7)

DOE will hold 5 public meetings across Nevada in May to decide the "scope" for its "Rail Alignment Environmental Impact Statement (EIS)." Public comments will be accepted until June 1st. The ROD and "Notice of Intent" for the EIS are available at www.ocrwm.doe.gov

under "What's New." See www.nirs.org for an action alert on how to submit comments to DOE by the June 1st deadline.

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CHERNOBYL COMMEMORATED

Thousands of people gathered in the capital of the **Ukraine** to remember the 18th anniversary of the Chernobyl disaster. Many brought pictures of relatives that had died or that still suffer from health problems. WISE/NIRS Ukraine organized several meetings in schools, universities and libraries in the region of Rivne (site of Rivne NPP). On a weeklong tour, information was given on Chernobyl, waste and renewable energies. On Earth Day (22 April), WISE/NIRS Ukraine participated with other NGOs in actions.

Halo noviny, 26 April 2004; WISE/NIRS Ukraine, 2 May 2004

WISE **Russia** (Ecodefense) protested on 22 April in front of the Ministry of Industry and Energy. The aim of the action was to demand a review of plans for the construction of up to 40 new reactors by 2030. Around 30 activists hanged banners and unfortunately two were arrested.

WISE Russia, 30 April 2004

Friends of the Earth **Germany** (Bund) made an appeal to European Union accession countries Lithuania, Czech Republic, Slovakia, Hungary and Slovenia for the closure of unsafe reactors in those countries. The five countries became members of the EU on 1 May. Bund wants the closure

dates of Ignalina and Bohunice to be earlier than presently planned and also other reactors to be included in the phase out programs. Bund has asked the German government to support a phase out and prohibit German companies from contributing to lifetime extension work in the countries.

Press release Bund, 25 April 2004

In **France**, actions were held at several nuclear sites. Some 2,000 people from France, Germany and Switzerland demonstrated near the French Fessenheim NPP at the beginning of the *tour de France for a nuclear phase out* (see *WISE/NIRS Nuclear Monitor* 604, page 8). 200 people demonstrated near the decommissioned Brennilis reactor and smaller rallies were held in other cities.

AFP, 24 & 25 April 2005

Also in **France**, the independent radiation group Criirad called on the government to disband a government-appointed working group studying the Chernobyl fallout in France. The charge concerns the controversy over the level of contamination in France and whether authorities had reacted properly (see *WISE/NIRS Nuclear Monitor* 566, 5395: "Disinformation on Chernobyl fallout in France"). Criirad believes that the government in 1986 deliberately ignored the risks to avoid

panic and protect the nuclear industry. The working group was established in 2002 to resolve the issue but is plagued by internal disagreements. Criirad is convinced that if the working group continues, its work will amount to a "state lie".
Nucleonics Week, 29 April 2004

Notably on Chernobyl day, 26 April, **Ukraine's minister for Energy** Serhiy Tulub announced that the government is considering the construction of a new reactor by 2010-2012. The new 1000 MW is planned as third unit at the Khmelnytsky site, where a second reactor will be completed this year. Nevertheless he had the 'courage' to claim that "we have learned the lesson of Chernobyl".
AFP, 26 April 2004

In the meantime, the **IAEA** announced a new project, the Chernobyl forum, whose task will be to give "transparent statements that show the factual situation". The forum of the IAEA, Ukraine, Russia, Belarus and other U.N. organizations will review all existing studies and, according to Reuters News Agency, "filter out the good, throw out the bad and present a clear summary to next year's U.N. General Assembly". That does not sound very promising....
Reuters, 27 April 2004

CZECH SEARCH FOR NUCLEAR WASTE REPOSITORY

During the last two years there has been relatively rapid development in the search for a final deep geological repository for nuclear wastes in the Czech Republic. After years of confusion following the break-up of the Soviet Union and consequent loss, for the Czech Republic (and other CEE states), of the option to export nuclear wastes back to Russia (for re-fabrication or storage), the newly established state offices now self-confidently claim the ability to solve the waste problem.

(609.5604) **WISE Czech Republic** - On the basis of the so-called "atomic law" approved in 1997, the Radioactive Wastes Repository Authority (SURAO) was entrusted with the task of managing all nuclear wastes in the Czech Republic. Intermediate and long-term wastes, most in the form of spent fuel from the two Czech NPPs, Dukovany and Temelin, form the substantial part of all the wastes.

Currently these wastes are stockpiled onsite in a surface storage facility at Dukovany NPP but as with other nuclear countries, no solution for intermediate and long-term management has been found. *The Concept of Radioactive Waste and Spent Fuel Management in the Czech Republic*, approved by the government in May 2002, proposed a deep geological depositing as the preferred long-term management option.

Site selection

SURAO began research activities for the siting of a deep geological repository (DGR) in the Czech Republic in 1998 and after several months of studying archival geological data, came up with a list of eight potentially suitable localities.

In April 2003 SURAO announced another "narrowing" of the list of selected areas. The term was misleading because although two areas were ruled out (probably as a result of the close proximity to the border of strongly anti-nuclear Austria, already in dispute with the Czech Republic over the completion of Temelin NPP), two new areas were also added.

In order to create the impression of development in the research work and to justify the use of the term

"narrowing", SURAO, in two cases, united pairs of localities previously considered separate (but situated in the same vicinity) into one single locality. The list was thereby officially reduced to six "main" localities in April 2003 and moreover, SURAO published a list of "substitute" localities. These five places would not be subject to further geological research immediately but would be the preferred areas to begin new research if none of the current six main localities prove suitable.

The first phase of research activities (1998-2003) culminated in a study carried out by a sub-contracting company Energopruzkom Praha (EpP). EpP geologists concluded their research works by presenting two lists of prospect localities - a "broad version" (8 sites + 1 "artificial" locality situated in former coalmines) and a "narrow version" (6+1).

SURAO, however, only took part of EpP's conclusions into consideration and decided on the choice of 6 localities - all situated in granitic rock formations. The rest became "substitutes" while the artificial locality was ruled out completely.

EpP and SURAO have subsequently argued about their different choices, clearly illustrating a lack of agreement among expert geologists even on the basic steps - choice of localities to be researched.

Public opposition

SURAO immediately began the next phase of research, field geological surveys, once the six localities were announced.

At the same time, citizens living

around all six localities began to seriously turn their attention to the issue, developing active opposition towards the project with unprecedented intensity. The progress of events was similar in all areas - starting with petitions and joint letters of opposition sent to SURAO and other state institutions by the mayors of most villages (one locality covers area of 8 villages on average).

The letters usually included lists of environmental and social arguments against siting of the DGR in the region but also criticizing the lack of transparency (citizens and mayors were only informed ex-post and by the media about their inclusion in SURAO's list) and lack of democratic procedures in the decision-making.

The villages began seeking legal methods to enable their participation in decision making after receiving little or no reaction from the state politicians and officials to their letters and petitions. Unfortunately they discovered that their position and prospects were weak. Current Czech atomic law explicitly stipulates the investor (applicant) of a nuclear facility as the only participant in the licensing procedures. Villages are allowed to give their comments during previous procedures (land-use permit, building-license, EIA) but these are not binding. State offices can easily overrule any opposition from the villages.

Some citizens and village representatives initiated local referenda (15 by 28 April), results of which are binding for the villages and their elected bodies, but not for state offices. 80-100% of voters opposed the siting of DGR in or around their village with a very high average number of

participating constituency - about 70% (unusual in the post-communist countries).

Some areas, realizing the limits of the practical powers of referenda in the current Czech legal system, have found other methods to express disapproval. 6 cities (including Jihlava, the region's seat) and 36 villages situated around Rohozna locality have composed a joint letter describing in detail the arguments against placing DGR in the Rohozna area. Representatives of another locality, Pacejov, began a new petition demanding, among other things, the halt of all research activities and re-assessment of the current national concept on radioactive waste management.

The petition was signed by elected boards of over 120 Czech municipalities, mostly situated around prospective DGR areas. A Local citizen association (NGO) in Pacejov, formed with the aim of preventing DGR siting in the locality, has assembled over 4,000 members just a few months after its foundation although the entire area houses just over 10,000.

The protests have grown from local to regional. The six localities are scattered in the area of four regions ("lands"). During January and February, elected boards of three of these regions adopted resolutions refusing the situation of DGR to the localities in their area. The fourth regional board is yet to follow but judging by the latest media statements of its high officials it is just a matter of time.

Tactical maneuvering

Late in 2003 the problem outgrew national limits. The Ministry of Industry and Trade (MIT) was preparing a new national energy policy which included a proposal for construction of two more nuclear reactors (see *WISE/NIRS Nuclear Monitor* 607.5594 "Czech Government Adopts National Energy Policy"). Lack of a prospective solution or even any policy on nuclear waste management could have made it difficult for MIT to push ahead with new reactors therefore MIT has ordered SURAO to

change tactics in dealing with the opposition from the villages.

In December SURAO sent a letter to all villages in which the elected boards were officially asked about their willingness to co-operate with research activities. Those villages that would not stand against co-operation were promised the opportunity to become the subject of an "accompanying development program" - in other words, they were promised money.

Villages unwilling to co-operate were granted a halt on all research activities in their area - but only for 5 years. One of 48 villages has allegedly reacted positively to the offer but any talks are kept secret as both SURAO and the village's representatives are afraid of public outcry from the opponents both from inside the village and from neighboring villages.

In mid February the Minister of Industry, Milan Urban, publicly announced the "halt of all research activities concerning the DGR in the Czech Republic". As an alternative option, he mentioned efforts to find a common solution on the EU level. Nevertheless his announcement was probably a tactical step in order to temporarily calm down the rising opposition towards his energy policy proposal and towards the research policy of SURAO.

Later events would show this suspicion to be true. The MIT energy policy proposal was approved in mid March and since then information on future research concerning DGR has become more opaque - information from various state offices (MIT, SURAO) is even more confusing and contradictory.

The latest news suggests that SURAO, well aware of current deadlock situation in the regions, plans to suspend field geological research but continue other research and PR activities. It intends to pass the responsibility to the government and has drafted a proposal (suggesting the halt of research and reassessment of current policy) and submitted it to the

MIT and the government. The government is now under pressure from both sides - on the one hand it favors the operation of the six current reactors and even adopted an energy strategy that incorporates additional nuclear capacity (after 2020), while on the other hand it is faced with heavy local and regional opposition concerning the wastes.

In the meantime the nuclear lobby has successfully dismissed a proposal for the amendment of the atomic law. Originally drafted by senator Jitka Seitlova in co-operation with several NGOs, the amendment would give the municipalities right to joint decision making in the siting processes of nuclear facilities, increase the ceiling of financial liability for potential nuclear damages and guarantee the municipalities around nuclear facilities financial compensation for the economic losses resulting from their close vicinity.

The proposal was stopped at the beginning of legislative process (in the Senate) but in the end its proponents at least succeeded in convince their colleague-Senators not to sweep it off the table completely. The proposal has been frozen for one year until which time "implications of its contents can be considered in more detail by experts" and also "the EU is expected to decide on its policy towards management of nuclear waste in its member states".

The Czech Republic officially entering the EU on 1 May but it remains to be seen whether this historical moment will be of any help in the search for long-term solution of dealing its nuclear wastes.

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NIRS AND OTHERS CHALLENGE US NUCLEAR TRANSPORT REGULATIONS

Despite four years of public participation, expressions of opposition to and concern with the proposals by US agencies to “harmonize” with international transport recommendations, the US Nuclear Regulatory Commission (NRC) and Department of Transportation (DOT) adopted new regulations for radioactive transport in January 2004. NIRS and numerous other groups and individuals are challenging a portion of the rule that reduces public protections by allowing more radioactivity to move on roads, rails, planes and waterways without regulatory control.

(609.5605) NIRS - Among other provisions that weaken public and worker protection from nuclear materials in transit, the regulations exempt various amounts of every radionuclide (radioactive forms of each element) from placarding, manifesting and tracking. A whole new category of exempt quantities “per consignment,” which did not exist in previous regulations, is being adopted.

In addition, the previously allowed exempt concentration level (70 becquerels per gram or approximately 2 nanoCuries per gram of any one or combination of radionuclides) is being replaced with different levels for each radionuclide. For more than half of the radionuclides, the exempt concentrations will increase, thus increasing the amount of unregulated nuclear material being shipped without any notice or regulatory control.

“At a time of heightened alert and concern about dirty bombs, the federal government is dramatically increasing the amount of nuclear material that can be transported routinely into and through the US without any labeling or controls. This is the exact wrong time for US agencies to let go of nuclear materials and wastes,” stated Diane D’Arrigo, Radioactive Waste Project Director at Nuclear Information and Resource Service. “It will make it harder to watch for and detect dirty bombs because there will be more false positives in everyday transport.”

“Workers and the public will be exposed to radiation without their knowledge or consent. It is forced radiation exposure,” charged David Ritter, Policy Analyst at Public Citizen’s Critical Mass Energy and Environment Program.

Transport workers in both the rail and trucking industries and those involved in cleaning up accidents could be routinely exposed to radiation. First responders, customs agents and those who load and unload shipments will also come into contact with unlabeled nuclear materials.

Since the materials could go to municipal and industrial landfills, incinerators and scrap recycling centers, workers at those sites could be regularly exposed to more radiation.

“NRC and DOT’s generic exemptions will facilitate the deregulation of nuclear waste and use of contaminated materials to make household items and building supplies. That is the real motivation,” said Dr. Judith Johnsrud of the Sierra Club, “to make it easier for other federal and even state nuclear agencies to treat nuclear waste as if it is not radioactive.”

Neither NRC nor DOT can provide any meaningful justification for the exemptions for relaxing restrictions on nuclear materials. The exempt amounts are the same as those proposed by international nuclear advocacy organizations (IAEA and Euratom) to allow nuclear waste to be deregulated or “cleared.”

Once “cleared” from nuclear controls, the radioactive material can enter the marketplace as regular trash or be sold to recyclers to make consumer goods like cars and toys and to build civil engineering projects like roads, playgrounds or parking lots.

“It is not a coincidence. It’s a deliberate attempt to by the Bush Administration agencies to bypass the American public’s opposition to

nuclear waste deregulation and get it into US law,” said Michael Welch of the Redwood Alliance. “DOT and NRC are teaming up with the global nuclear power and weapons industry to make it cheaper to run and decommission nuclear reactors and support facilities.”

The Environmental Protection Agency, Nuclear Regulatory Commission and Department of Energy are all in the various stages of deregulating nuclear wastes over which they have jurisdiction.

“Removing existing requirements for labeling in transit will make it easier for those agencies to let nuclear wastes to get out into commerce. The public will be exposed both during transport and then again from the products and buildings made from contaminated materials,” explained Dan Hirsch, President of the Committee to Bridge the Gap.

Since both US agencies share responsibility for radioactive transport in the US, they coordinated adoption of the same exemption regulations. NIRS et al are challenging the rules of both agencies. The DOT is expected to respond to the challenge by May 25, 2004. The case against the NRC is on hold in the 9th Circuit of US Federal Court until the DOT responds.

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IAEA CHIEF 'SEES NO CASE FOR REFORM'

The head of the International Atomic Energy Agency (IAEA), Dr Mohamed El Baradei, has said he sees "no case" for reforming the organisation he leads, in particular over its inherent conflict of interest between both promoting and regulating the world-wide nuclear industry.

(609.5606) FOE Europe - The IAEA Director General was questioned by FOEE during his recent visit to the European Parliament in Brussels, in which he also discussed future scenarios for nuclear power with MEPs and lobbyists.

Introducing his speech, said he was "pleased to be returning to the development of civil nuclear power, having spent the last two years preoccupied with Iraq and proliferation issues," before embarking on a fairly predictable tour of nuclear topics.

But in the questioning that followed, Dr El Baradei said he "did not accept" that promotion and safety regulation were in conflict with each other, and that both these aims should continue to be central to what IAEA does.

As a UN organisation, the IAEA reports to the General Assembly. But it is its

Statute, first adopted by member states in 1956, that primarily guides its operations.

Article 2 states that the organisation's main objectives are to "accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world" and, "to ensure ... that assistance provided by it... is not used in such a way as to further any military purpose."

In fulfilling Article 2, the IAEA is more well known for the second objective, namely its work on nuclear non-proliferation, which has been undertaken most recently in countries like Iraq, Iran, and Libya.

But IAEA promotion of the nuclear is clear from, for example, "promoting innovation through our International Project on Innovative Nuclear Reactors and Fuel Cycles" highlighted by Dr El

Baradei during his speech. It is also clear from the general tone of the many public statements produced by the IAEA that it has no doubt nuclear power ought to remain part of global energy supply.

Friends of the Earth is calling for all such institutional conflicts of interest to be stopped, and for the clear separation and independence of regulatory functions from that of nuclear promotion. After 50 years of sustained and often flawed support from national and international public bodies, the nuclear industry ought to be able to defend its interests on its own.

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References: IAEA, www.iaea.org

BELENE EIA – SAFETY UNPROVEN

The Bulgarian government has given the go-ahead for re-start of the scheme to build a new nuclear power plant at Belene before an acceptable conclusion is reached on the risks and negative impacts on environment, health and economy.

(609.5607) CEIE/CEE Bankwatch Network - On 4 May, the final public hearing on environmental impact assessment (EIA) report for the construction of Belene NPP took place in Sofia and was attended by about 100-150 people, many of them from the EIA report team, nuclear industry and scientific circles. Despite the attempts of the panel to keep the hearing at a slow, non-emotional and almost sleepy pace, environmentalists and citizens were able to engage in the discussions.

The hearings in the countryside were better attended. In Pleven, Belene and Nikopol the vast majority of people supported Belene as they see the project as a potential source of employment that could raise their living standards. In Svishtov, the town

in which mass protests led to the "freezing" of the construction in 1990, a number of people and NGOs expressed opposition to the project. More than 100 questions tabled have yet to be answered conclusively.

The EIA report can be classified as one of the worst presented for a nuclear power plant project. The number of ambiguous statements such as "We don't have enough information to prove...", "Additional investigations are requested to prove that..." "The data for present status of... is missing", etc. is incredibly high in the almost 1500-page report and most important questions, including those on spent fuel management, remain unanswered.

The evidence presented on the impacts on the river Danube was inconclusive and no bio-monitoring analysis was carried out on the areas of Belene and Kozloduy (for compatibility). The impact of seismic threats such as Vrancea in Romania also appears to have been undermined.

The lack of detailed information on reactor types under consideration for the project means that no effective risk assessment can be made on the possible impacts to the environment and public health. The EIA report team argued that lack of complete data on reactors and safety systems is because the process is still in the preliminary stages. Nevertheless, they did not hesitate to make positive conclusions about reactors that have yet to be

constructed such as the Russian's B-407 and B-466 (an adaptation of a previous reactors design) or the Canadian CANDU, subject of completely opposing assessments from different specialists – from being as dangerous as the Chernobyl type reactor to being the safest in the world.

The question of the risk from terrorist attack was not assessed at all. It is stated that the containment could withstand a crash of a small plane but no evaluation was made regarding large aircraft in targeted air attacks. It is well known that the Bulgarian air force is not in a position to prevent an attack similar those seen in New York in September 2001. The government is presumably relying on support from the projected NATO/US bases in Bulgaria.

The assessment of "zero alternative", i.e. not building a new plant, is narrow-minded and provocative. The authors assume that "zero alternative" refers to the construction of 1000-2000 MW fossil-fueled plants instead of the Belene NPP and failed to consider alternative solutions. As a result there is crazy speculation that without Belene, Bulgaria will become a significant contributor to climate change in the future!

Many experts – economists, NGO representatives working on development issues, energy experts – agree that economical part of the

Indian reactor shut down after accident. India's 220 MW Kakrapar-1 reactor was ordered to shut down on 22 April by the Atomic Energy Regulatory Board (AERB) because of "weakness in safety culture". The reactor experienced a power trip (a sudden increase in the reactor's power output) on 10 March, because of failing power supply to the regulating system and malfunctioning of the boron emergency shutdown system. Power increased from 70 to 98% before an emergency shutdown. Although the reactor was brought back to service two days later, AERB later decided that

project is also unclear and impose more unanswered questions. Besides the misleading statements on the bright socio-economical future of the region around the Belene NPP, there are other questions requiring immediate comment such as:

- What guarantees did the Bulgarian government receive from potential constructors, investors and operators that their project proposals pricing electricity at 3-4 Euro cents are achievable?
- Why the government chooses to make a long term investment of 3-6 billion Euro (depending of the number of units) instead of a shorter term investment of some 2-2.5 billion Euro in action plan for energy efficiency and renewables?

One Bulgarian MP and a number of NGOs have claimed that the EIA procedure itself has been manipulated siting the contract for the EIA report, the review period for the report and lack of public hearings in many big towns within the 100-km zone among the reasons.

Moreover, even the Minister of Energy and Energy Resources, Mr. Milko Kovatchev, agreed that there is a need for more EIA studies once a specific reactor design has been selected. But the current Bulgarian Environmental Protection Act does not specify such an extensive procedure and the main treat is that once a positive decision is in

IN BRIEF

plant's management hadn't been able to determine the exact cause of the accident. The accident was rated as level 2 on the INES scale.

Nucleonics Week, 29 April 2004

Missing fuel parts in U.S. reactor. Two highly radioactive pieces of a 12 feet long fuel element are missing from the Vermont Yankee reactor. Operators tried to locate the two pieces – which had been removed from a fuel element in 1979 when fuel cladding appeared to be defective – inside a special container in the spent fuel pool.

ALLEGATIONS OF CORRUPTION

Bulgarian Minister of Energy Milko Kovachev requested on 30 April that authorities investigate allegations of corruption made by Canadian company Atomic Energy of Canada Ltd. (AECL) concerning the procedures used by Bulgaria to select a contractor for a second nuclear plant. Kovachev also asked AECL to send him a copy of the unsigned letter it claims to have received, which reportedly stated that Bulgarian officials wanted between US\$40 million and US\$480 million for granting the tender. In a letter to AECL President Robert van Adel, Kovachev said that any hint of corruption or attempt to influence the competitiveness of the negotiation process may discredit the Belene nuclear plant project. Furthermore Kovachev asked Bulgaria's prosecutor to order an investigation into the case.

Bulgarian News Network, BNN, 30 April 2004

place, there are no binding mechanisms for re-opening the procedure for new detailed assessments.

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Entergy is now preparing to use a remote-controlled camera to search the pool and is also checking old documentation to investigate whether the pieces might have been sent to a low-level waste dump. In 2000, two spent fuel rods were found to be missing from the Millstone-1 reactor and were never located. It was assumed they ended up in the Barnwell waste dump. That event prompted the U.S. Nuclear Regulatory Commission to require other operators to account for all their fuel.

Nucleonics Week, 29 April 2004

Hanau MOX deal suspended?

According to a Chinese Foreign Ministry spokesman on 27 April, the plans for the sale of the German Hanau MOX plant to China have been suspended. It is unclear why the deal collapsed, but negotiations may restart in the future. "The two sides can have further contacts if they consider the cooperative project mutually beneficial and want to continue the project, but the contacts must be fair and transparent", the spokesman said. In Berlin, German Foreign Minister Joschka Fischer said he had taken note "with interest" of the Chinese statement but could not comment further. According to Prime Minister Gerhard Schröder, the plans are not totally cancelled and an application for export still remains under consideration. The plan for the sale of the plant was heavily criticized, mainly for proliferation risk reasons (see *WISE/NIRS Nuclear Monitor* 608.5599: "Hanau export and possible military uses in China").
www.chinaview.cn, 27 & 28 April 2004; AP, 4 May 2004

Plane misses nuke by "100 feet". A British military transport plane missed crashing into a Scottish nuclear plant by just "100 feet", an industry source has revealed, adding that the Royal Air Force C-130 Hercules needed to "bank steeply" in order to avoid a collision. The incident, which occurred at the Chapelcross NPP on the 19 December last year, has only now been uncovered after questions were tabled in Parliament. The UK authorities had previously tried to cover up the matter.

The Chapelcross NPP is a first generation Magnox unit, and so is particularly vulnerable, as it does not have secondary containment. The site additionally has spent fuel ponds and a tritium facility linked to weapons programs. A further five less serious breeches of the standard 2km no-fly zones at other UK sites - Dungeness, Torness and Berkley - were also confirmed, although full details have still to be released.

Sunday Herald, 2 May 2004; FOEE by email, 4 May 2004

Tc-99 discharges from Sellafield cut.

UK nuclear regulators announced approval for the chemical process to reduce marine discharges of technetium-99 from Sellafield by 90%. Instead of being discharged into the Irish Sea, the Tc-99 will join Sellafield's intermediate waste stream. The news follows trials forced on British Nuclear Fuels' by government ministers in 2003. Discharges of Tc-99, which has a half-life of over 210,000 years, had been increasing until recently leading to widespread international protests, particularly from Ireland and Norway, both of which registered large increase of Tc-99 along their coastlines.

N-Base Briefing 413, 24 April 2004

UK keeps nuclear option open. The British government is to continue working on research, design and development of nuclear power despite unresolved issues in relation to nuclear waste according to a progress report following the publication of the 2003 White Paper setting out national energy policy for the next 50 years. Britain has not built any nuclear power stations for more than a decade and most of its reactors are scheduled to close over the next twenty years.

World Environment News, 28 April 2004

Radioactive wastewater from German reactor spills into Rhine.

About 30,000 liters of radioactive water poured into the river Rhine near Karlsruhe after a pump malfunctioned at the Philippsburg nuclear power plant. The spill occurred during testing of valves that move wastewater into tanks and the water leaked into the river on 24 April when a valve was mistakenly left open. The leak was not reported to the state Environment Ministry until 26 April.

The Associated Press, 28 April 2004 & **Press release EnBW**, 28 April 2004

Vanunu places security in hands of Anglican Church. Mordechai Vanunu, the 50-year old Israeli technician who served 18 years behind bars for revealing information about Israel's secret Dimona nuclear site to the

Sunday Times newspaper in London, has placed his future security in the hands of the Anglican church, appealing to the Archbishop of Canterbury to help ensure his safety. Vanunu's brother, Meir, made the appeal public asking that the Archbishop, Dr Rowan Williams, help safeguard Vanunu, who has been receiving death threats since his release from prison on 21 April. Vanunu has been given food and lodgings at the compound of St George's Cathedral in Jerusalem since regaining his freedom. The bishop has offered to allow Vanunu to remain there, but he is concerned that the church cannot provide the kind of security the former nuclear technician requires. The *Sunday Times* has rented a luxury apartment in Jaffa, south of Tel Aviv, for Vanunu but he has refused to budge from the Anglican headquarters in Jerusalem. He has also rejected a proposal to relocate to an Anglican Church in Nazareth.

Ecumenical News International, Geneva, 30 April 2004

European Union's nuclear capacity

increased on 1 May. On 1 May, ten countries officially joined the European Union (EU). Five of the new member states – Lithuania, Slovakia, Slovenia, Czech Republic and Hungary – have nuclear energy programs, with a total of 19 operational nuclear reactors between them. Their accession means that 13 out of the 25 EU member states produce nuclear electricity, with the total number of operating commercial nuclear power reactors increasing from 136 to 155. Lithuania is scheduled to close two units at its Ignalina plant by 2005 and 2009, while Slovakia will shutdown two reactors at its Bohunice plant in 2006 and 2009.

WNA News Briefing 04.18, 28 April-4 May 2004

Pakistan builds new nuclear plant.

China is to help Pakistan build a new nuclear power plant in the north of the country, the two sides have announced. The power plant, to be built at Chashma south of Islamabad by 2010.

It is the second nuclear plant that China has helped Pakistan construct, and comes after a Pakistani scientist confessed to leaking nuclear secrets. Representatives from the Pakistan Atomic Energy Commission and the China National Nuclear Corporation signed the contract, estimated to be worth US\$600 million.

BBC News, 4 May 2004

UK nuclear firm separates clean-up business. British Nuclear Fuels has launched its clean-up activities as a separate company on 4 May in preparation for the creation of a new decommissioning authority. The business, called British Nuclear Group, has annual turnover of almost GBP 2 billion (US\$ 3.5 billion) and employs 15,000 people in work including nuclear reprocessing at Sellafield, and the decommissioning of Magnox

reactors around the UK. From next April, the new operation will face competition following the creation of the Nuclear Decommissioning Authority (NDA), a government body overseeing the clean-up of nuclear sites in the UK. As part of the Energy Bill, which still needs parliamentary approval, the majority of BNFL's assets and liabilities, including responsibility for decommissioning plants at Sellafield, will be transferred to the NDA.

The Press Association, 4 May 2004

Ignalina-1 closure delayed? The Lithuanian Nuclear Power Safety Inspectorate (Vatesi) says it is not able to grant a license for the closure of the dangerous reactor as planned, regardless of the political pressure to do so. The government had asked for the shut down of the Chernobyl type

reactor by on 31 December, which is also a condition for its European Union membership. Vatesi stated that Ignalina-1 cannot simply be "disconnected" from unit-2 and would need a new boiler house and waste management system. Vatesi will not license the closure of unit-1 until it is satisfied that Ignalina-2 can run on its own.

Nucleonics Week, 22 April 2004

Japan to store SNF. An expert panel affiliated with the Japan Atomic Industrial Forum (JAIF) has recommended that the reprocessing of spent nuclear fuel be limited to the capacity of the Rokkasho facility. Current government plans call for spent fuel in excess of Rokkasho's capacity to be stored for 40-60 years and suggest the construction of a second reprocessing plant.

WNA News Briefing 04.18, 28 April – 4 May 2004

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Ed Asner on nuclear power

Ed Asner's speech at the April 15 kick-off dinner for the Fund for a Nuclear-Free World is now available for downloading at www.nirs.org. Titled, An Angry Man Speaks About Nuclear Power, the speech covers a lot of ground on current nuclear issues. We think you'll like it.

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