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OSPAR 2003: DISCHARGES SELLAFIELD FAR AWAY FROM "CLOSE TO ZERO" TARGET

The members of the OSPAR Convention will meet in Bremen (Germany), 25-26 June, to discuss radioactive discharges into the North Sea and North Atlantic. In 1998, goals were set for pollution by the nuclear industry by 2000/2020 and in Bremen it will be discussed whether these goals will be realised.

(589.5523) Cumbrians Opposed to a Radioactive Environment - In July 1998, at Sintra in Portugal, European environment Ministers committed their countries to reducing radioactive discharges to the North-East Atlantic marine environment. This was done at the meeting of the OSPAR (Oslo-Paris) Convention (officially called the "Convention for the Protection of the Marine Environment of the North-East Atlantic"). The Ministers' final Declaration raised significant hopes that the nuclear industry would be forced to take action to curb marine discharges (see also *WISE News Communique* 495.4888: "OSPAR Convention: European reprocessing industry given deadline of year 2020").

With reprocessing as the major culprit, tough times were expected for British Nuclear Fuels plc (BNFL) and its French counterpart Cogema. Green groups were in no doubt that immediate action by the reprocessing industry was vital if OSPAR's targets were to be met.

Five years on and OSPAR Ministers are currently gathering at Bremen, Germany, to appraise the progress of their 1998 Declaration which committed them to "working towards achieving further substantial reductions or elimination of discharges, emissions and losses of radioactive substances by the year 2000".

The aim was to achieve a situation where, by year 2020, **additional** concentrations of manmade radioactivity in the marine environment (above historic levels) were to be "close to zero" (see box on page 2).

Sellafield discharges rising

With no such action having been taken, it should not take Ministers very long to conclude that the progress demanded in 1998 has in fact been in the other direction. Sellafield's discharges have not only increased since 1998, but are set to rise even higher over the next decade.

BNFL is likely to maintain that its current business plan for reprocessing is geared to and capable of meeting OSPAR's 1998 objectives. By any standard however, the increase in discharges since 1998 cannot be reconciled with the "substantial reductions" demanded at Sintra.

Neither can the projected increases, in data provided by BNFL to the U.K. Environment Agency (EA) in 2000, hold out any hope that marine concentrations will be anywhere close to zero by 2020. Incorporating BNFL's projections in their review of Sellafield's discharge authorisation (now in Draft Decision form and awaiting UK Government approval), the EA appears to have bowed to BNFL's business interests. The loser, once again, is the marine environment.

Despite the dwindling prospects for reprocessing, the EA has provided significant latitude to BNFL to more than double its reprocessing discharges over those of 1998 used by

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CLOSE TO ZERO...

The Ministerial Statement at the OSPAR 1998 meeting at Sintra (Portugal) defined their goals on radioactive discharges as:

"...by the year **2000** the [OSPAR] Commission will, for the whole maritime area, work towards achieving further **substantial reductions or elimination** of discharges, emissions and losses of radioactive substances; [and] by the year **2020**...the Commission will ensure that discharges, emissions and losses of radio-active substances are reduced to levels where the **additional concentrations in the marine environment above historic levels**, resulting from such discharges, emissions and losses, are **close to zero**."

So, by 2000 substantial reductions of discharges should have been realized. And by 2020, those discharges should be further reduced. By 2020 levels of radioactivity in seas may not exceed "historic levels", which means that certain discharges of radioactive sub-stances will be allowed as long as overall activity will not increase (or be close to zero), compared to "historic levels". The definition of "historic levels" is not explained in the 1998 Ministerial Declaration.

Sources: *WISE News Communique* 495, 7 August 1998; www.ospar.org

OSPAR as its reduction baseline. A few site limits have been reduced by the EA who, for the first time have also set limits for discharges from individual plant. Most site limits however have remained unaltered, with BNFL allowed oceans of 'headroom' – the difference between the actual annual discharges and the (higher) annual discharge **limits**.

For example, in 2000 Sellafield discharged 2000 Terabecquerels (TBq) of tritium against a site limit of 30,000 TBq, and 2.7 TBq of Ruthenium 106 (Ru-106) against a site limit of 63 TBq.

Defending its generosity, the EA cites the urgency of dealing with the huge stockpile of legacy wastes stockpiled at Sellafield in an array of buildings and containers in dubious condition and rapidly approaching the end of their life - though BNFL was already on record as saying that they needed significant headroom "to minimise business risk", a clear reference to preventing anything from getting in the way of their reprocessing plans.

The priority given to clean up work by the EA and fellow regulators has however already made enemies outside the UK. The rapid increases in discharge of technetium-99 (Tc-99) from Magnox reprocessing and held in old storage tanks due for closure in 2006 has particularly infuriated OSPAR member Norway whose pristine fishing grounds have been contaminated. Under the tank-emptying policy, technetium-99 discharges have soared since the mid to late 1990's and are now close to their 90 TBq limit.

As a belated gesture to Norway, the UK government now appears to have agreed a 9-month moratorium on further technetium-99 discharges whilst other management methods are pursued. Whatever their justification, discharges from remediation work will remain dwarfed by those from reprocessing.

In its 2000 submission to the EA, BNFL explains "it is important to note that when comparing immediate past and future discharges, the primary reason for discrepancy is the low average (reprocessing) throughputs ... which have depressed discharge levels below those which would have resulted from normal operations".

Both the Magnox plant B205 and its Oxide counterpart THORP have averaged a throughput over the last 5 years of around 50% of design capacity.

B205, whose scheduled closure in 2012 is directly linked to the shutdown of BNFL's ageing fleet of Magnox power stations around the UK, faces the task of reprocessing well over 1000 tonnes per year if its closure date is to be met. THORP, still faced with major problems in downstream plant (vitrification) and under fire from customers for being 3 years behind schedule, will also have to lift its game to well over 1000 tonnes per year if contracts are to be honoured.

If these targets are achieved, a doubling of reprocessing discharges is inevitable, as BNFL's projected figures show. Their projected and 'worst case' discharges 2001-2009 make alarming reading for the marine environment. Many of the latter are predicted to reach or exceed site limits and already there is evidence that some of the new individual plant limits (not yet ratified by Government) are already being breached.

TECHNETIUM IN SUPERMARKET SALMON

Tests on Scottish salmon in U.K. supermarkets have found traces of technetium-99, Greenpeace U.K. said on 23 June. The relevation came one day before Britain is due to face fierce criticism at the OSPAR 2003 meeting. The research was conducted by the University of Southampton and found low levels of technetium-99 in some salmon collected from six British supermarkets. Jean McSorley, a spokeswoman for Greenpeace said that this "isn't a threat to health, but it shouldn't be there". The finding is significant because the salmon was farmed in Scotland, several hundreds miles north of Sellafield and would often have been fed with fish from the south Atlantic and Pacific oceans, not from the Irish Sea. The isotope could only have come from Sellafield: "That's the only source of T-99 in that part of the world", according to Greenpeace. Previous research has found traces of technetium-99 in lobsters and other shellfish in the North Sea and Irish Sea.

***Reuters*, 23 June 2003 / *Greenpeace UK*, 23 June 2003**

25 YEARS AGO

NIRS and WISE both celebrate their 25th anniversaries this year. This is the ninth article in a series, "25 years ago", comparing anti-nuclear news "then" and "now", to mark our first quarter-century of anti-nuclear campaigning.

Then

In issue 2 of the *WISE Bulletin* we wrote about an upcoming referendum in Austria: "Austria is to hold a referendum on November 9 on whether to go nuclear or not. [...] Austria's first reactor at Zwentendorf, only 35 km west of Vienna, is virtually ready to come into operation". (*WISE Bulletin* 2, July 1978)

Now

In the 1978 referendum, 50.47% voted against the opening of Zwentendorf. The NPP had been under construction since 1972 and fuel for the reactor was delivered by helicopters in 1978 due to heavy protests around the site. In the 1970's a total of three NPP was planned for Austria. Presently, only a few research reactors are operational in the country. (www.global2000.at)

In the early 1980's the Social-Democrats (SPÖ), at that time government coalition member together with the Freedom Party (FPÖ), wanted to overturn the 1978 outcome by holding a second referendum but failed due to resistance from the FPÖ. (*WISE News Communique* 534, 15 September 2000)

In November 1997, an anti-nuclear package was discussed between Austrian anti-nuclear NGOs and the government and accepted in the council of Austrian Ministries. According to the anti-nuclear package a law was adopted which laid down the anti-nuclear policy of Austria; the storage of foreign waste was forbidden; Austria would make an issue of the phase out of nuclear energy in the talks on EU-accession countries negotiations; and push for more research money on renewable energy in the EU. (*WISE News Communique* 483-4, 19 December 1997)

Austria has often protested against the Czech Temelin NPP and made it an issue in the talks of the European Union with the Czech Republic on accession to the EU. However, it did not use the right to veto Czech's accession.

Despite their opposition to dangerous nuclear reactors in neighbouring countries, 12.5% of the electricity in Austria comes from nuclear imports. This amount has grown since the electricity market was liberalized. (*WISE News Communique* 534, 15 September 2000)

In 2003, a countrywide petition ("Volksbegehren") was held to force the government to oppose the use of nuclear energy in the EU. The petition was sponsored by Greenpeace Austria and forces the government to debate an amendment to the Austrian constitution in parliament. At the closing date, 17 June, an amount of 131,853 people signed the petition. (*Terra Daily*, 18 June 2003; *Greenpeace Magazine*, 18 June 2003)

By comparison with discharges in 2000 when reprocessing throughput remained low, BNFL's figures show that future discharges of each of the dozen or so principal radionuclides routinely pumped into the Irish Sea is set to increase dramatically.

Taking the highest yearly discharge for each radionuclide over the period to 2009, the average increase is almost 700% of 2000 levels. Ru-106 discharges, for example, are projected at over 27 TBq compared to 2000 discharge of 2.7 TBq (1030%); Americium-241 (Am-241) by 630%; total alpha by 780%; and the combined discharge of Zirconium-95 and Niobium-95 by 3800%. "Substantial reductions" as in the 1998 Sintra Declaration are clearly not in BNFL's game plan.

At Bremen, the blame for these damaging prospects will be placed firmly on UK and French ministerial shoulders. Ireland, with legal challenges to the UK/BNFL currently on hold, will be urging support and drastic action from other OSPAR's members in an attempt to bring the two renegade countries, oblivious to environmental concerns, into line.

As this issue of the *WISE/NIRS Nuclear Monitor* goes to press no outcomes of the 2003 meeting are known yet. We will hopefully update you in our next issue.

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TAIWAN: ACTIVISTS PROTEST ARRIVAL OF REACTOR

Around 200 residents of the Taiwanese Kungliao village in Taipei County demonstrated on 20 June near the site of the "fourth nuclear power plant" (Lungmen) to demand a halt to the arrival of a reactor from Japan. For several years now anti-nuclear activists have fighted the construction of the nuclear power plant, helped by Kungliao fishermen.

(589.5524) WISE Amsterdam - The reactor vessel and related equipment for the first (of two) reactor was carried from a military port in Japan's Hiroshima Prefecture by a Dutch ship ('Happy Buccaneer', Mammoet-company). Taiwan Power Company will place the reactor temporarily in a warehouse at the construction site. The plant's commercial operation will be launched in July 2006, said Taiwan Power Company.

According to anti-nuclear activists the reactor design, an Advanced Boiling Water Reactor (ABWR), has been used in the Japanese Kashiwazaki NPP, which experienced several accidents.

Taiwan currently operates three nuclear power plants with each two reactors at a site (Chinshan, Kuosheng and Maanshan).

Construction of the disputed Lungmen plant was abruptly halted in October 2000 by the administration of the ruling Democratic Progressive Party (DPP) shortly after President Chen Shui-bian came to power in May that year (see *WISE News Communique* 538.5217: "Taiwan: Lungmen cancellation announced, political row continues").

The administration however ordered a resumption of the construction February 2001 after encountering an enormous backlash from the opposition camp (Kwomintan Party) (see *WISE News Communique* 543.5245: "Taiwan: two sides to the nuclear coin").

A new 'Environmental Basic Law', passed by Parliament in November 2002, requires the government to turn Taiwan into a 'homeland free of nuclear energy' (*see WISE News Communique* 559: "In brief"). But, the government doesn't mention a date for a final phaseout of nuclear energy. Building a nuclear-free Taiwan has long been a top priority of the DPP and was one of Chen's election promises three years ago.

But now the government is promoting the idea of building a nuclear-free homeland but still goes on constructing the Lungmen reactors at the same time. The DPP government now studies the feasibility of holding a referendum to decide the future of the plant.

To help raise public awareness and give the people a better understanding of what it means to be a 'nuclear-free homeland', the Government Information Office, some Ministry's, the Atomic Energy Council and others formed a Committee for Disseminating Information on Establishing a Nuclear-free Homeland.

As no dates have been laid down for a final phaseout, construction of Lungmen is still continuing and no referendum has been held, the Taiwanese nuclear industry proceeds with its plans for Lungmen and neglects the wish for a nuclear-free Taiwan.

On 28 November 2002, the head of the Atomic Energy Council (AEC) announced that Taiwan won't become nuclear-free until 2061, based on the earliest time that Lungmen could be decommissioned (after 45 years of operation).

Resistance against the Lungmen plant has been strong. Taiwan's first anti-nuclear demonstration against it took place in 1987 when hundreds of people sat in front of the Taipower building to protest plans to build Lungmen.

Building Lungmen leads to a negative impact on the ecological systems of nearby coastal areas also because of the construction of a wharf to facilitate construction of the plant.

Environmentalists are convinced that the marine habitat of Yanliao (lying within a marine resource conservation area immensely rich in both the number of species and their populations) will be devastated and that the three-kilometer golden beach of fine quartz sand which runs from Yenliao to Fulung, one of the priceless ecological and tourist resources of the northeast coast, may be lost along with it.

Meanwhile protests are continuing. Anti-nuke activists marched on 23 June from Taipei's City hall to the Longshan Temple in Wanhua District marking the completion of a nine-month island-wide drive over more than 1,000 kilometers to get the fate of the plant back on the political agenda.

With this march concluded, the activists plan to stage a sit-in protest in front of the Presidential Office on 4 July to pressure President Chen Shui-bian to fulfill the promise he made during the 2000 presidential election to halt construction of Lungmen.

The anti-nuclear activists, who organized the Association for a referendum on Lungmen, also plan to visit nuclear power stations island-wide to promote their anti-nuclear message.

Even te U.S. starts interfering with the issue. Two Chinese-language newspapers reported that the U.S. has warned Taiwan not to hold a referendum on Lungmen.

The *United Daily News* and *Apple Daily* reported that Douglas Paal, director of the American Institute in Taiwan, said Washington opposed the referendum, planned to coincide with next year's presidential elections. President Chen Shui-bian respondend by saying that "only Taiwan's 23 million people have the right to decide Taiwan's future".

Sources: Government Information Office, 14 February 2001; *Sinorama Magazine*, 27 March 2001; *Taipei Times*, 28 November 2002, 20, 23 June 2003; *China Post*, 20, 21 June 2003

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U.S.: TEXAS GIVES GO-AHEAD FOR TWO WASTE DUMPS

The Texas Legislature has just given the go-ahead for the first new so-called "low-level" radioactive waste disposal sites to be realized in the United States in decades. The two sites will hold wastes from nuclear weapons production and commercial producers (mainly nuclear energy). The proposed dump sites in Andrews County are located on top of the Ogallala aquifer, the largest in the U.S.

(589.5525) Texas Radiation Online - Projected to open in 2008, the site would have two dumps: one for federal nuclear weapons waste with an initial capacity of 162 million cubic feet (4.6 million cubic meters) and one for commercial radioactive waste (primarily from nuclear energy) from the Texas Compact (1).

A "Compact" consists of a number of states which store radioactive waste from their territories in a disposal site in one of the states, in this case Texas.

The Compact currently includes Texas, Maine and Vermont, but Maine will be leaving in 2004. Not only could other states replace Maine, but both dumps could end up accepting additional radioactive waste from the entire nation due to legal loopholes.

Equivalent to a football field over 280 stories tall (2), the original capacity of the federal weapons dump would be 60 times that projected for the commercial dump over its 35-year term (3).

The site is expected to be operated by Waste Control Specialists LLC (WCS) in Andrews County, Texas, which currently operates a mixed hazardous and radioactive ("low level" and transuranic) waste processing facility.

Andrews is approximately forty miles from the Waste Isolation Pilot Project (WIPP, the U.S.' first deep geologic repository for nuclear waste) in Carlsbad, New Mexico. It has been suspected that WCS seeks to become a companion site to WIPP, as WCS has increased the handling of transuranic waste, and plans to expand by adding services elsewhere in nuclear fuel chain.

Aquifer and earthquake risks

An environmental assessment was never conducted prior to issuing WCS's radioactive processing license, despite serious suitability questions. The proposed site, located in Andrews County, is dug into the Ogallala formation, which resides about 30-40 feet below the surface (4).

The Ogallala is the largest aquifer in the United States, extending through Texas, New Mexico, Oklahoma, Kansas, Colorado, Wyoming, Nebraska, and South Dakota.

Without producing evidence, company geologists claimed the formation was absent at the proposed WCS site in Andrews, that it had been misidentified in their previous permit application, and that the material present at their site is indigenous to another formation over 350 miles away, not the Ogallala (5).

This claim was never questioned on record by the State Bureau of Radiation Control. Later, WCS was formally criticized by the University of Texas on hydrology (6).

In response WCS changed their story a second time, and produced a geological survey which claimed that the Ogallala was "partially there", not absent.

In the 1980s, Andrews County was rejected by the U.S. Department of Energy (DOE) in screenings for siting a high-level radioactive waste repository, due to the presence of the Ogallala. The state's now-defunct Disposal Authority additionally had rejected the County in 1987 for siting a "low-level" radioactive waste dump for nuclear energy waste (7).

The area is also seismically active with 18 seismic events counted within a 30 mile radius (48 kilometers). Of these, the latest occurred on 2 June 2001 at a depth of 5 km, with a 3.3 magnitude, and the largest occurred on 2 January 1992, approximately 15 miles from the site with a 5.5 magnitude. Eight of these events happened in 1976 alone (8).

Lobbying
WCS and its parent company, Valhi, have waged a massive campaign for eight years, spending hundreds of millions of dollars in campaign contributions and insider lobbyists in both Texas and Washington to evade Texas law, which until now, has prevented a private company from operating a disposal site.

Valhi's owner, Harold Simmons, is a personal friend of U.S. president George W. Bush, and was instrumental in funding both his campaign for Texas governor and for U.S. president. Valhi was majority owner of Halliburton when US Vice President Cheney was employed as its CEO.

US Interior Secretary Gayle Norton was employed as an attorney of Valhi's subsidiary, National Lead Industries, defending the company in lawsuits involving schoolchildren poisoned by the use of the company's lead paint in New York schools (9).

Regulatory
It's now up to Texans to challenge the regulatory process at the Texas Commission on Environmental Quality (TCEQ, formerly TX Natural Resource Conservation Commission). New state regulations for radioactive waste disposal must be developed and adopted by late 2003. The process of developing rules includes several opportunities for public participation: comments on draft rules packages are being considered for adoption.

Licensing begins with the filing of applications in early 2004. TCEQ will select an applicant by 2005, and the technical review is to be completed by late 2006.

The State Office of Administrative Hearings will then conduct a contested case hearing if, and only if, an "affected person" requests a hearing. There is a danger that the definition of "affected person" may be drastically narrowed through legislation passed during the 30 June – 30 July 2003 special session, making it impossible for anyone to meet the requirements (10).

Between now and 2008, there are two regular state legislative sessions and many opportunities to stop the dumps through legal, administrative, and legislative avenues.

Notes:
1. Texas State Legislature, 78th Session, H.B. 1567, Enrolled version; p. 14, lines 13-27 and p. 15, lines 1-15.
2. Department of Energy, *EM Progress newsletter*, Fall/Winter 2002, p. 9; available at www.em.doe.gov/emprog/
3. Rogers and Associates Engineers, *Texas Compact Low-Level Radioactive Waste Generation Trends and Management Alternatives Study*, RAE-42774-019-5407-2, conducted for Texas Natural Resource Conservation Commission, August 2000, p. 1-5.
4. AM Environmental, 1993, RCRA permit application for a hazardous waste storage, treatment, and disposal facility: prepared for Waste Control Specialists. Texas Department of Health, Bureau of Radiation Control, License L04971.
5. Lehman, T. M., 1996, *Geology of the WCS facility, Andrews County, Texas*, submitted for license application.
6. University of Texas, Bureau of Economic Geology, *Review of Data on Hydrogeology and Related Issues in Andrews County, Texas*, for Texas Low-Level Radioactive Waste Disposal Authority, 1999
7. Texas Low-Level Radioactive Waste Disposal Authority, internal memorandum entitled "Evaluation of Andrews County Site", to Ruben Alvarado, P.E. from Lawrence R. Jacobi, Jr., P.E, 29 July 1987, and related materials.
8. Independent research, USGS Earthquake Hazards Program, National Seismic Hazard Mapping Project, and National Earthquake Information Center.
9. Various sources: Texas newspapers 1995- 2003. National Institute on Money in State Politics, Texans for Public Justice, and many others.
10. Texas State Legislature, 78th Session, H.B. 1567, Enrolled version; section 25 & Fiscal Note.

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BRITISH ENERGY'S ROCKY PATH AHEAD

The decision, reported by the Financial Times, that Mario Monti, the European Union's Competition Commissioner, will mount a full investigation into the bail-out of British Energy means that the drama surrounding the collapse of the UK nuclear generator is far from over.

(589.5526) Friends of the Earth Europe - Observers expect a long and complex case that will test key principles of European law and, undoubtedly, will be subject to high degree of political interference by nuclear lobbyists in the industry and elsewhere.

What is at stake the power of the EU to enforce competition law in the European energy market, and therefore to curb or penalise subsidies. Alternatively, will nuclear industry backers be allowed to continue to distort the market by, for example, the granting of huge bailouts, writing off debts, and funding long term decommissioning and waste management costs?

Generating a fifth of UK electricity, British Energy hit the headlines last September when it revealed that it would imminently run out of cash. Without rapid help, it claimed, the company would go into administration.

In emergency talks, the UK government offered a 650 million British Pounds (US$ 1.06 billion) short-term loan facility, whilst the company and officials tried to figure out what to do over the longer term. (See also *WISE/NIRS Nuclear Monitor*

578.5468: "Huge state handout aims to keep British Energy afloat" and 583.5490: "Dismantling British Energy").

After two months of secret talks, and in simultaneous announcements to both Parliament and the London Stock Exchange, a detailed proposal for major restructuring was unveiled (see box).

This package has now been referred to the European Commission, who has up to 18 months (or two years from the initial crisis) to decide to approve, amend or reject it.

In deciding on the case, the potential dilemma facing Brussels officials goes to the highest levels of European law. On the one hand, under the main Treaty of Rome, as amended over the years, the concept of a single market based on competition free of distortion is clearly set out and understood.

State aides are generally outlawed, whilst exceptions must be justified and gain explicit approval. Other players in a given market may expect some kind of compensation if they are put at a disadvantage.

Proposed BE Restructuring Package

- UK government makes 150-200 million British Pounds (US$ 244 - 326 million) per year direct subsidy for 10 years;
- UK government orders 120 million British Pounds (US$ 195 million) discount off BNFL reprocessing deal;
- UK government underwrites all long-term decommission & waste liabilities;
- Equity & debts written off, and new lower-value shares & bonds issued;
-Shake-out in senior management: new chairman & CEO appointed;
- BE makes token payments to a replacement liabilities fund;
- Requirement to obtain approval under EU competition law.

One the other hand, the 'other' Treaty of Rome, the Euratom Treaty, also dated 1957, still requires the "speedy growth and establishment" of the nuclear industry, giving it a special aided status in primary law of the EU.

This reasoning may seem far-fetched, as Euratom is often seen as being so out of date as to be irrelevant. But, for example, during recent debates over revisions of the EU electricity and gas directives, (all aimed at paving the path towards further liberalisation of the market).

Commission officials have been citing Euratom as grounds to shield the exposure of nuclear to the market place. This is a trend that could easily grow, and so should be checked as soon as possible.

Investigations into the BE fiasco in Brussels could well be match by those in London. The high level of public subsidy now envisaged means scrutiny by the UK's National Audit Office and similar agencies. "Are the proposals cost effective?" is now a key issue, particularly when one remembers that the arrangement to reprocessing BE's spent fuel in all practical respects goes unchanged.

Reprocessing is of course expensive and unnecessary, so why the UK taxpayer should fund it has not been explained. Potential savings of 1-2 billion British Pounds (US$ 1.6 –3.2 billion) over ten years could be diverted in to other 'green' energy options or indeed any other area of public spending.

The UK also maintains it had to rescue BE for reasons of security of supply, although this is contested by the main opposition parties and NGOs. The Government and regulator have, whilst confirming an assessment of the security of supply question has been undertaken, nevertheless have so far refused to release any details of it.

The British government will make security of supply the centrepiece of its case, but also using this to disguise other more embarrassing issues such as reprocessing.

In other developments, BE's difficulties were compounded this month when it announced an annual loss of 4,290 million British Pounds (US$ 7 billion), the worst in its history. Whilst most of this was the expected write-down in plant values (3,740 million British Pounds or US$ 6.09 billion), the operating losses were still a record 130 million British Pounds (US$ 211 million), matching a pattern of losses now well established by BNFL.

Of interest too is the huge fees paid to the 'professional' advisers who are conducting the restructure. The total is around 35 million British Pounds (US$ 57 million) to date, which amounts more than the value of the entire stock of BE's shares, which currently trade at just 4 pence (7 US dollarcents) each.

BE's attempted sale of Amergen in the US has also run into the buffers. Originally required to complete by 30 June 2003, UK's ministers have now given BE a longer period to complete the disposal. There is still however no buyer in sight.

The simple conclusion is that, whilst most media attention has gone away, BE is still far from being in the clear. The restructuring could still fail, and the company then goes into administration, with the UK government and taxpayer left to pick up the pieces. The difficult, some say impossible, relationship between nuclear and the market place will be cast back into the spotlight.

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REPORT REVIEW
BECHTEL: PROFITING FROM DESTRUCTION

On 5 June, a national action day was held in the U.S. against the Bechtel company, who has been involved in nuclear businesses since the development of nuclear weapons in World-War II.

Actions in San Francisco and Washington D.C. were also directed to Bechtel's role in "re-building" Iraq. On the action day, the report *Bechtel: Profiting from Destruction* by CorpWatch, Global Exchange and Public Citizen was released.

"Bechtel Group Inc., one of the lead contractors in the reconstruction of Iraq, has a 100-year history of capitalizing on environmentally unsustainable technologies and reaping at immense profits at the expense of societies and the environment", according to the report.

The report provides case studies for Bechtel's role in water, nuclear, energy and public works sector and documents a track record of environmental destruction, disregard of human rights and financial mismanagement.

In April, Bechtel was awarded a contract worth up to US$ 680 million to reconstruct infrastructure, electricity, water and waste water systems in a bidding process that forbade public review and was kept secret even from the U.S. Congress.

Apart from more details about Bechtel's role in Iraq, the report gives an overview of its role in nuclear businesses. The chapter "Bechtel and nuclear nightmares" starts with the conclusion that Bechtel has profited both from military and commercial nuclear activities in the U.S. It is now even involved in cleaning up the radioactive mess that the own company created in the past.

What now follows are some examples of Bechtel's nuclear record.

In the early 1940s, Bechtel was involved with the development of the atomic bomb and in the earliest phase of civil nuclear energy. Since then, Bechtel built and/or designed more than half of U.S.' NPPs.

These **NPPs** are responsible for radioactive discharges into water and air. In 1977, Bechtel made a mistake by installing the reactor vessel of San Onofre-2 180 degrees backwards.

After the 1979 disaster at Three Mile Island-2, Bechtel was involved in clean-up operations at the plant and was accused of circumventing safety procedures. Employees who blew the whistle on these violations were harassed by its management.

Bechtel has also been involved in **nuclear waste** business and designed the West Valley reprocessing plant, which was closed after 6 years of operation and left 600,000 leaking tanks of liquid waste. Cleanup would cost US$ 4.5 billion.

Once again profiting from the problem it created, Bechtel was also awarded a US$ 3.2 billion contract for the Yucca Mountain project.

The company is also involved in nuclear projects **abroad**. Examples are the Chernobyl sarcophagus reconstruction project and the project to build two light water reactors in North Korea.

In India, it built the Tarapur reactor, which was used for the production of plutonium for the 1974 nuclear bomb test.

In **promoting** nuclear, Bechtel has been active in efforts to expand nuclear energy in the U.S. Bechtel spearheaded an initiative called the Committee for Energy Awareness, which later became the Nuclear Energy Institute, the principal nuclear lobby organization.

Bechtel is involved in the development of the high temperature reactor. If U.S. Senate will approve federal funding of new reactors, Bechtel would be a leading candidate for future contracts.

On the **military** side, Bechtel is responsible for the management of the Nevada (nuclear weapons) Test Site on which subcritical nuclear tests are conducted. Bechtel is also contractor at the Oak Ridge Reservation that produces weapon components.

Bechtel holds contracts for **cleanup** work at former nuclear weapons facilities. A Department of Energy investigation revealed management shortfalls that were a threat to environment and health at the Paducah enrichment plant. A DOE investigation at Hanford showed significant deficiencies in radiological work planning and control.

The full report can be found at www.citizen.org/documents/profilebechtel.pdf

WISE Amsterdam

IN BRIEF

Rabbits burrow into U.K. Dounreay plant. Managers at the British Dounreay nuclear power plant have been ordered to stop rabbits from entering radioactive waste pits at the plant. Inspectors from the Scottish Environment Protection Agency spotted the lovely bunnies hopping in and out of solid low level waste pits during a recent routine visit. Evidence was found of burrows through two pit caps. The U.K. Atomic Energy Authority (UKAEA) has been told to cut off access to the rabbits, who are in danger of spreading radioactive waste around the site and beyond. The plant operators are now ordered to take immediate and long-term measures to limit wildlife access to the pitts and also to quantify and repair damage caused by wildlife. The plant is consulting on culling the rabbits.
BBC, 23 June 2003

Tokyo Electric restarts second nuclear unit. Japan's largest power company, Tepco restarted a second nuclear reactor - the 1,356 MW Kashiwazaki-Kariwa-7 power plant in Niigata prefecture - on 18 June, bolstering its attempt to avoid electricity shortages in Japan's capital this summer. It was the second of the company's 17 reactors to restart since Tepco was forced by the government to shut all units for safety checks. That was done on 15 April. On 7 May the first reactor - the 1,356 MW Kashiwazaki-Kariwa-6 was restarted. The company is awaiting approval from Fukushima prefecture to restart the 784 MW Fukushima-I-3 and the 1,100 MW Fukushima-I-6 reactors. Tepco says it expects power shortages during July and August unless 10 reactors have restarted.
Bloomberg.com, 18 June 2003; *WNA News Briefing* 03.25, 18-24 June 2003

Plans for U.K. state body to clean up nuclear waste. The British government issued on 24 June a "blueprint" for a new state-funded body to clean up nuclear waste for almost 50 billion British Pounds (US$ 80 billion). Costs could rise to more than US$ 140 billion. The nuclear sites and radioactive substances bill will allow the government to finance the decommissioning of closed NPPs. The draft bill will set up a Nuclear Decommissioning Authority by April 2005. This body will oversee the clean-up of reactors, fuel reprocessing and nuclear research and development facilities dating back to the 1950s. The decision to publish the draft bill, will come as a relief to British Nuclear Fuels, the state-owned group that operates Britain's Magnox power stations and the Sellafield reprocessing plant. The new authority will take responsibility for financing the clean up of all BNFL's 10 Magnox stations and the Sellafield plant.
***Financial Times* and *Guardian*, 25 June 2003 / *Nucleonics Week*, 26 June 2003**

U.S. Seabrook reactor coming down. The never-completed second unit of the Seabrook NPP is being dismantled for scrap iron. The decision to get rid of the dome ends any speculation that Seabrook's second reactor would ever be completed, plant spokesman Alan Griffith said. When Public Service Company of New Hampshire began construction in 1976, it envisioned two reactors at a cost of less than US$1 billion. But Seabrook became the focal point of anti-nuclear opposition in the 1970s, and because of this opposition and the utility's financial problems, only one reactor was finished.

By the time the 1150 MW Seabrook-1 went on line in May 1990, the plant had cost already US$6.5 billion. Construction on the second reactor stopped in 1984 and the steel dome along the Atlantic marshes has been rusting on the horizon ever since. In 1988, Public Service was declared bankrupt. In 2002, FPL Energy of Flordia bought the plant. Equipment inside the dome, including the reactor vessel and other apparatus will be used or sold by FPL.
***Seacoastonline*, 20 June 2003**

Bulgaria's President insists on extension of reactor closure deadline. Bulgaria's President Georgi Parvanov requested on 18 June the European Union (E.U.) to extend a deadline it has agreed with Bulgaria to close two reactors at its Kozloduy plant. The E.U. has agreed to send an expert mission to assess the safety of reactors –3 and -4 of the plant, which Bulgaria had pledged to shut down in 2006. According to Kozloduy's CEO Yordan Kostadinov international fears about the reactors were based on outdated information and the reactors were later upgraded. The E.U. however insists that they are still dangerous because of lacking safety containments. To complicate things further, Bulgaria's Surpreme Administrative Court annulled in January 2003 a government decision to close the reactors in 2006 (see *WISE/NIRS Nuclear Monitor* 581.5480: "Kozloduy-1 and –2 shut; court blocks closure of –3 and –4"). But, the EU said that the Bulgarian court ruling was not binding for it and has urged Sofia to abide by its international commitments.
Bulgarian News Network, 18 June 2003

U.S. Indian Point drill a joke. A drill designed to test security at the U.S. Indian Point nuclear power plant at Buchanan, New York, is set to take place in July, but anti-nuclear activists doubt the effectiviness of it. Entergy, the owner of the plant, is going to use state-of-the-art military equipment to simulate a terrorist attack at the plant. The Indian Point Safe Energy Coalition claims the drill is a joke because it's not realistic enough. The group also claims that the workers at the nuclear power plant already know about the upcoming drill, which of course takes away the element of surprise. But, the U.S. Nuclear Regulatory Commission says that if it were truly a surprise, the guards could think it is a real attack and something could go terribly wrong.
***News 12 Westchester*, 24 June 2003**

Are U.S. Holtec nuclear storage casks safe? Public Citizen and the Nuclear Information & Resource Service (NIRS), have called for an investigation into possible design flaws concerning storage containers that would be used in transporting spent fuel to Yucca Mountain. In a letter to the U.S. Nuclear Regulatory Commission (NRC) both organizations requested an independent evaluation of the NRC's quality assurance program in light of safety allegations brought by former Exelon employee, Oscar Shirani. In July 2000, as an employee of Exelon, Shirani led a quality assurance audit of Holtec, a lead manufacturer of casks used to transport and store spent fuel, and its supplier, U.S. Tool & Die. Shirani uncovered nine quality assurance violations indicating that casks made by Holtec may not match the licensed design specifications. This means that casks loaded with fuel may not perform as expected under stress and strain, and under certain circumstances may not isolate the radioactivity adequately. Holtec casks are currently used to store fuel at five sites in Illinois, Oregon, New York, Georgia and Washington states. Shirani, whose employment was subsequently terminated by Exelon, also alleges that the NRC failed to adequately address the safety issues he identified and that some of these issues remain unresolved. His list of pending Holtec violations include welding violations, brittle materials, damaged neutron shielding and falsified quality assurance documents.
Public Citizen, 19 June 2003 / *Las Vegas Sun*, 21 June 2003

IAEA blames operator for Paks-2 fuel damage. Time pressure, underestimation of safety consequences by both operator and regulators, and overconfidence in vendor Framatome ANP were major factors in the 10 April fuel damage incident at Hungary's Paks-2 reactor, an IAEA expert mission has concluded. The team said those factors contributed to a weak assessment of a new design and operation. It concluded that "neither the Hungarian Atomic Energy Authority (HAEA) nor Paks used conservative decision-making in their safety assessments for this unproven fuel cleaning system". Paks and Framatome are still debating the accident sequence, the tank remains in the fuel transfer pool, and the closed reactor is costing Paks US$ 225,000 a day. The IAEA team concluded also that personnel involved did not receive adequate training. A video inspection has recently shown that all 30 fuel elements inside the container were damaged, some severely.
***WNA News Briefing* 03.25, 18-24 June 2003; *Nucleonis Week*, 26 June 2003**

Nuclear plant delay requested. The Union of Concerned Scientists wants U.S. FirstEnergy Corp.'s troubled Davis-Besse nuclear power plant kept shut down until a federal criminal investigation of the plant ends. The Washington-based advocacy group sent on 25 June a letter to the U.S. Nuclear Regulatory Commission urging the agency to delay any restart until the NRC concludes its criminal investigation. The Union believe there is strong evidence FirstEnergy management committed criminal acts in lying under oath to the NRC.
***Beacon Journal*, Ohio, 26 June 2003**

Phenix fast reactor restarts. The French Phenix reactor has restarted after a Euro 250 million (US$ 290 million) upgrade. The 250 MW

WISE SEEKS

WISE is seeking an experienced editor with organisational skills, for about 36 hours/week. Based in Amsterdam, The Netherlands, pending on working permit.

World Information Service on Energy (WISE) publishes the bi-weekly *WISE/NIRS Nuclear Monitor* (20 issues a year) and has done this over the last 25 years. In 2002, WISE and the U.S. based Nuclear Information & Resource Service (NIRS) combined their newsletters.

The *WISE/NIRS Nuclear Monitor*, published in English, is solely devoted to news and backgrounds on nuclear energy (developments). The magazine is mainly meant for and used by NGO's and anti-nuclear activists, but also reaches media and our natural enemy, the nuclear industry.

The *WISE/NIRS Nuclear Monitor* has a small circulation, high quality and is highly valued for its accuracy, engagement, know-how and modest approach on our own role.

The Monitor is translated and distributed by our relays in Spanish, Russian and Ukrainian. Plans for a Japanese version are on the table.

Editing, organisation and planning is done by one person, he or she is also responsible for organising contributions from others.

Tasks of the new (paid) editor: writing, final editing, active networking and organisation of the production

WISE asks
* In-depth knowledge of nuclear energy issues or willingness to obtain
* Dedication
* Accuracy
* Fluent English (speak and writing), second language capability is an advantage
* Willingness to learn Dutch
* Journalistic skills and interest combined with committment with our readers
* Affinity with the anti-nuclear movement

WISE offers
* A small, horizontal structured collective with dedicated colleagues
* Modest but good wages (approx. 1100 Euro/month/net)
* An interesting workplace with lots of international contacts
* Flexible working hours

Please contact WISE.

experimental fast breeder reactor had been shut down since 1995. Since its opening in 1973 it had a low capacity factor of only 27% (see *WISE News Communique* 490: "In brief"). Phenix will not be used to "breed" plutonium as was its original design. In the coming years (it will finally close in 2008) it will be used for research on burning actinides (plutonium, americium, etc.).
***WNA Weekly Digest*, 20 June 2003**

DU in the 2003 war on Iraq and international conference. A new report *The Use of Depleted Uranium in the 2003 Iraq War* by Dan Fahey, available on the WISE uranium website (www.antenna.nl/wise/uranium/pdf/duiq03.pdf) reveals that during the 2003 Iraq War, the U.S. and U.K. armed forces shot ammunition made from depleted uranium (DU) at a wide variety of targets. Although there is little known about the actual quantities of DU released or the locations of contamination, it appears that approximately 100 to 200 metric tons was shot at tanks, trucks, buildings and people in largely densely populated areas. The U.S. and U.K. governments have announced they will medically test veterans who were exposed to DU. The lack of a coherent environmental policy will likely result in Iraqi civilians and relief workers being unnecessarily exposed to DU contamination. Further policy action and additional research are needed to resolve the uncertainties regarding the use and effects of DU munitions in the war.

Connected to this is an initiative for an international conference on depleted uranium (DU): *Depleted uranium / uranium weapons: the Trojan horses of nuclear war.* This international organizing Conference will take place in Hamburg, Germany from 16-19 October 2003, at the University of Hamburg. The purpose of the conference is to bring together under one umbrella the different facets of a widely scattered movement, and galvanize a cohesive international strategy and movement to eliminate DU and other uranium weapons. The primary language of the conference will be English, with translators. It will also be broadcast by live-Internet feed for those such as individual affected veterans and civilian populations in Iraq, the Balkans and Afghanistan who cannot afford to directly attend.

More information can be found at our newly opened website (in development) at: www.uraniumweaponsconference.de.

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THE NUCLEAR MONITOR

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

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

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