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TAXPAYER DOLLARS FOR NEW U.S. REACTORS?

The nuclear power industry isn't content with having changed the reactor licensing process to its benefit over the past two decades, including obtaining its long-sought goal of "one-step" reactor licensing. Now, the industry wants taxpayer dollars to help it achieve its goal of building new nuclear reactors in the U.S.

(575.5447) NIRS - According to a report in the *Nucleonics Week* (3 October 2002), the nuclear industry recognizes that nuclear power just might not be cost-competitive in the current deregulated electricity climate, and the industry therefore recommends that taxpayers put up interest-free loans, mechanisms to help utilities avoid construction cost overruns, and ways to support financing from construction delays or citizen intervention.
The industry also wants a carbon emissions credit that would enable nuclear plants to trade credits with coal plants, thereby pretending to do something about global warming while ignoring the environmental problems caused by radiation releases and radioactive waste production.

Apparently the nuclear industry and DOE have figured out that without direct taxpayer subsidies such as these, new nuclear power plants won't be cost-competitive with other electricity sources. DOE says that they won't be competitive until at least the fourth or fifth new reactor is built, although others argue they never will be cost-competitive.

Meanwhile, other members of the nuclear industry are asking for taxpayer dollars to help them through the industry-designed "one-step" reactor licensing process. Not content with merely having trampled on public rights and opinions in the early 1990s by forcing the institution of the "one-step" reactor licensing process, the chiefs of Exelon, Entergy, Dominion and Southern Nuclear have asked the DOE for cost sharing, loans and/or tax breaks to help them get through the reactor licensing process they designed to reduce their own costs. Apparently these utility executives don't believe nuclear power can be cost-competitive without substantial taxpayer subsidies.

Their request goes further than last year's NRC proposals to streamline the "one-step" licensing process, drastically reducing public participation rights in nuclear licensing hearings (see *WISE News Communique* 551.5296, "US: 'McLicensing' for nuclear power companies?")

According to the trade publication *Inside NRC* (7 October 2002), the utility executives, and former NRC Commissioner James Curtiss, now a lawyer for the nuclear industry, think even the streamlined one-step process contains too many potential pitfalls for the nuclear industry to get over by itself. Gosh, citizens might actually want to participate in decisions that affect their lives, and how would that affect their profit margins?

Ironically, the "white paper" in which the nuclear industry makes its case for more taxpayer funding begins with the assertion that the current fleet of U.S. reactors "produce some of the most reliable, lowest cost electricity in the power industry." Of course, if that were actually the case for future reactors, no taxpayer money should be needed. How often do other mature technologies receive taxpayer subsidies? Do coal plants? Do chemical plants? Do grocery stores or laundries? Where is the line drawn? Or is it only drawn by the nuclear industry?

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The industry's white paper also argues that the government needs to stop talking and providing help for "renewable" sources of energy and instead "shift the debate" to focus on "non-emitting" sources of electricity, including nuclear power. The paper argues that the energy playing field needs to be evened "by crediting nuclear power as a 'green' energy source." Specifically, the paper argues that nuclear power should be included in the President's Clear Skies initiative.

According to the paper, "The Administration needs to shift the debate about 'green' energy to focus upon the desired end-state (economical, non-emitting, sustainable energy supplies) and decrease the specific emphasis on 'renewables.' In doing so, the Department needs to assure than nuclear energy is included in any federal programs, policies, or legislation that results in portfolio standards, credits, or trading systems. Any such program, however, should be forward-looking (i.e; applicable to future plants) and not penalize the large and important base of existing fossil fueled plants that provide the bulk of the nation's electricity today."

"In addition, there are other ways to help level the playing field for new nuclear plants that have been discussed (and even proposed in energy legislation)-e.g., (1) allowing access to tax-exempt financing, (2) providing investment tax credits during construction, (3) accelerated depreciation, (4) accumulation of decommissioning funds over plant operating lifetime, and (5) federal policies or regulations that encourage states to allow power purchase agreements that include a premium for electricity generated from sustainable, non-emitting sources."

These proposals have one thing in common: tax dollars. Whether it's direct taxpayer subsidy for the licensing process, "nuclear tax breaks" which shift the tax burden onto other taxpayers, or decommissioning funds that are only "full" at the end of a reactor's expected lifetime (so who pays if it closes early?), the message is the same. Nuclear reactors, once expected to produce electricity that is "too cheap to meter", are now so expensive that they can't be built without government subsidies.

Source and contact: Michael Mariotte, NIRS

LES ALERT!

Louisiana Energy Services (LES) wants to build a uranium enrichment plant in Hartsville, Tennessee (see *WISE/NIRS Nuclear Monitor* 573, "In Brief"). LES is attempting to get the NRC to pre-judge key issues in their favor by submitting "white papers' to the NRC. This would mean that citizens would not get a hearing, or at most a meaningless hearing after the real decisions have already been made. The NRC has asked for public comment by November 13, 2002. See the NIRS web site or contact NIRS for more details.
Alert on NIRS web site

DAVIS-BESSE: GAMBLING SAFETY FOR PROFITS

NIRS has obtained nearly 2,000 pages of documents on the Davis-Besse affair under the Freedom of Information Act. The documents show that despite receiving false statements from First Energy, the U.S. Nuclear Regulatory Commission was aware that Davis-Besse was operating in violation of its license, yet still allowed the reactor to keep running.

(575.5448) NIRS – In early March 2002, First Energy (FE), true to its name, revealed a policy to drive electricity production ahead of federal safety requirements. This official policy of mismanagement pushed its Davis-Besse nuclear plant to the brink of disaster.

Moreover, senior engineers at the United States Nuclear Regulatory Commission (NRC) realized a "high likelihood" that the reactor was so damaged that the risk of a nuclear accident grew greater with continued operation. Yet, federal officials were unable to issue an order to immediately shut the reactor for the necessary inspection and repair. Instead, the agency chose to ignore safety regulations and gamble with disaster to accommodate the financial interest of yet another corporate delinquent.

An NRC bulletin issued in August 2001 called for utilities operating pressurized water reactors (PWR) to inspect for dangerous cracks found in nozzles that penetrate the top of the reactor and house control rod drive mechanisms (CRDM). The NRC bulletin followed the discovery of cracks in Duke Power's Oconee reactor (see *WISE News Communique* 553.5309, "US: NRC ignores widespread safety flaw for decade"). Operators were instructed to look for "popcorn-like" traces of boron crystals as reactor coolant escaping

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from nozzle cracks. The bulletin warned that unchecked cracking in nozzles could grow to component failure, a loss-of-coolant-accident and reactor core damage. NRC required all operators to report inspection results to the agency by 31 December 2001. However, Davis-Besse operators were eager to complete its two-year operating cycle scheduled for a refueling in April 2002. Company management sought a waiver from the inspection and an extension to the reporting deadline to meet their outage date.

NRC engineers reviewing the Davis-Besse response were concerned that six of the seven other Babcock & Wilcox's (B&W) reactors like Davis-Besse had already found cracking. Only Davis-Besse had not fully inspected. A rare NRC "Order" to shut Davis-Besse for inspection by December 31, 2001 was finalized in November but never issued. In its place, a senior NRC officer reached a private compromise with the company to extend reactor operation to February 16, 2002.

When FE did inspect, workers found not only cracks but one of the 69 nozzles had come loose from the vessel head as a result of extensive corrosion around its base (see *WISE/NIRS Nuclear Monitor* 565.5385, "Millimeters from disaster").

Revelations into the near-miss accident at Davis-Besse go far beyond the reactor site perched on the shores of the Great Lakes near Toledo, Ohio. They warn of a dangerous gambit being played by atomic corporations in an increasingly competitive electricity market where public safety is sacrificed to ambitious production schedules. These revelations show that the NRC is willing to turn a blind eye on safety regulations to accommodate these same moneyed-interests.

Utility Admits Pushing Energy First and Placing Safety Last

For several years nozzles in the Davis-Besse vessel head were allowed to leak corrosive coolant through cracks growing in the welds. Throughout 2001, mystified operators and NRC inspectors ignored rising radiation levels and the growing presence of iron oxide particulate inside the containment. Meanwhile, leaking borated coolant flashed to steam on the carbon steel vessel head leaving a growing mound of caustic crystals.

The company was aware of the corrosion problem occurring inside the containment. Company documents from 1999 account for degraded containment radiation monitor filters due to the persistent accumulation of rust particulate. "While the exact source of the rust is not known, the high particulate problem developed about the same time as Plant Startup (10 May 1999) after the mid-cycle outage… Subsequent filter changes were required every 24-48 hours," states a condition report. The report says, "The Iron Oxide particles had a granule appearance indicating the source is from corrosion." Rather than find on the source of corrosion, First Energy focused on keeping the reactor running and brought in HEPA filters to control the dust in the containment atmosphere.

The company was aware of a "large boron accumulation" on the vessel head. "Boric acid corrosion may be a concern," states a work order during the 2000 refueling outage. The work description is clear. Workers were to "Clean boron accumulation from top of reactor head and top of insulation" using high-pressure steam. The safety significance for issuing the work order was clear: "The program is required due to degradation of the CRDM nozzle caused by Primary Water Stress Corrosion. In order to perform required inspections the nozzles as well as the penetrations must be free of boron deposits. Once the head is free from boron, new boron deposits may be easily noted and remedial action taken." The order was signed off on 25 April 2000 as "Work completed without deviation." The reactor restarted for its two year run before the next outage.

In fact, the vessel head was never cleaned or inspected. Over 900 pounds of the acid crystal had accumulated on the reactor head. The boron deposit was left to eat a hole roughly seven inches in diameter and over six inches deep through the top of the carbon steel

MORE CORROSION

Inspectors have now found what appear to be rust and boric acid crystals on the bottom of the reactor vessel at Davis-Besse. The deposits are much less serious than on the reactor vessel head, but of course replacing the vessel head will not remove these new deposits. At present it is unclear whether these deposits arise from cracking in nozzles underneath the reactor, or from cleaning the reactor. Nevertheless, First Energy's share price has fallen following the announcement. *The Plain Dealer*, 12 and 16 October 2002

REGULATIONS AND REALITY AT DAVIS-BESSE

First Energy actions: Falsely claimed that the reactor vessel head was free of boric acid deposits after supposedly being cleaned	**NRC actions:** Realized correctly that there was a high likelihood of cracking and leaks based on operating experience	**Outcome:** No cleaning: 900 pounds of crystals and hole in vessel head. First Energy facing criminal proceedings
Regulations state: Davis-Besse should shut down within 6 hours of recognition of reactor coolant leakage	**NRC actions:** Initially proposed 31 Dec. 2001 deadline, then 16 Feb. 2001 after First Energy complained	**Outcome:** NRC admitted failure and launched internal investigation

vessel head. A thin stainless steel inner liner, approximately 3/16th inch (less than 5mm) thick, was all that remained at the bottom of the cavity. With the load bearing iron oxidized into dust, the liner bulged out into the cavity from the reactor's internal pressure of over one ton per square inch. The liner, never intended as a pressure bearing material, cracked from the internal stress. Davis-Besse was unpredictably close to shearing open the vessel in a loss-of-coolant accident much worse than the 1979 core-melt accident at Three Mile Island-2.

In August 2002, FE offered federal regulators its analysis of the company's failure to identify and prevent the extensive corrosion of a principle safety component. The company's new and now "humbled" executive officer told NRC that "There was less than an adequate nuclear safety focus. There was a focus on production, established by management, combined with taking minimum action to meet regulatory requirements that resulted in the acceptance of degraded conditions." Indeed, we almost lost Toledo.

NORTH ANNA 2

Recent tests carried out at Dominion Energy's North Anna-2 reactor near Richmond, Virginia found cracks in 49 of the 59 nozzles in the reactor vessel head, compared to 5 of 69 nozzles at Davis-Besse. Yet none of the North Anna-2 cracks were reportedly found in visual inspections last year. This underlines the importance of proper testing (see *WISE/NIRS Nuclear Monitor* 568.5402, "Large numbers of undetected cracks in the world's PWR's"). Boric acid deposits were also found at North Anna-2, but in much smaller amounts than at Davis-Besse. Dominion announced that it will replace the reactor vessel head rather than try to repair the cracks.
ENS, 10 October 2002; *The Plain Dealer,* 10 October 2002

NRC Safety Concerns Eclipsed by Utility Financial Concerns

In theory, regulatory safeguards exist against the reckless operation of aging reactors. The NRC is mandated to "reasonably" assure the safety of the 103 U.S. reactors engaged in the dangerous business of splitting atoms to generate electricity. In practice, the Davis-Besse example warns that safety nets are rolled back to meet production schedules and maximize corporate net profits.

After NRC staff found dangerous cracking at South Carolina's Oconee Nuclear Station early in 2001, concerns over the prevalence of cracks and potential safety implications in all PWRs were raised. Thirteen of the nation's sixty-nine PWR ranked with the Oconee units as "highly susceptible." Davis-Besse was among that number. Staff focused concern on those units to shutdown and inspect vessel pressure boundaries and report back. This concern prompted the issuance of NRC Bulletin 2001-01 "Circumferential Crack of Reactor Pressure Vessel Head Penetration Nozzles" on 3 August 2001. On 4 September 2001, FE requested the waiver.

NRC engineers challenged the company request by preparing an "Order" to require a shutdown by 31 December 2001 for the safety inspection. Nearly two thousand pages of documents obtained by NIRS through the Freedom of Information Act reveal an array of staff concerns as they quietly began drafting the Order. As one NRC staffer wrote following FE's amendment request, "The level of degradation that has been found in other plants, if left undetected and uncorrected, would result in a gross failure of the reactor coolant boundary. On that basis, staff does not have reasonable assurance that adequate protection is achieved by plants that do not perform inspections that are sufficient to detect this type of degradation."

Davis-Besse's managers were not to be dissuaded by NRC concerns. On

WORKERS CONTAMINATED

At Florida Power & Light's St. Lucie 1 reactor, 32 workers inhaled radioactive particles when the reactor vessel head was pressure cleaned so that it could be tested for cracks similar to those found at Davis-Besse and North Anna-2. A further 6 workers were contaminated while a piece of equipment was being replaced. One of the contaminated workers had a radioactive particle imbedded in his underwear, which he brought back to his hotel room. The incident took place in the week ending 12 October 2002.
***Palm Beach Post,* 12 October 2002; *Press Journal,* 16 October 2002**

11 October 2001, FE officials appeared before the Commissioners Technical Assistants to defend their waiver request. Senior managers testified before the Commission that all of Davis-Besse's vessel head penetrations were "free from characteristic boron deposits using video recordings from the previous 2 refueling outages" made both before and after cleaning the head and "Davis-Besse has done more and better quality inspections than other plants." In so doing, company managers provided patently false statements to the Commission.

Internal NRC documents show that FE Vice President Guy Campbell pressured NRC officials to allow the reactor to operate until the regularly scheduled April outage. "I told him that based on the operating experience there is a high likelihood that they (Davis-Besse) have leaks- he agreed," states the NRC-sourced email. The communication concluded, "I told him that the reactor coolant pressure boundary leakage would not satisfy the regs [regulations – Ed.] or tech specs, that it would fail to maintain defense in depth and margins, and that there could be a crack large enough to cause them problems before April."

In fact, Davis-Besse's licensed condition required them to shut

down within six hours of recognition of any reactor coolant leakage. The NRC was technically justified and legally authorized to immediately shut Davis-Besse down. But as a NRC senior official reported "we are exercising discretion noting it would be clearly punitive to immediately shut a plant down and they sit there for a month waiting to obtain the correct inspection equipment etc." By NRC's own admission, the agency compromised safety regulations by deliberately allowing Davis-Besse to operate in violation of its operating license in providing the arbitrary 31 December 2001 deadline. This was a technically indefensible concession to the utility's financial interest. Yet even that was not enough for First Energy.

By letter dated 21 November 2001 a detailed Order was finalized by staff and signed by Nuclear Reactor Regulation Director Sam Collins. It was forwarded to the Commissioners through the agency's Executive Director of Operations. The Order was to be issued to the utility no less than 5 days upon Commission receipt. The Order states "...a potentially hazardous condition exists and warrants the issuance of an Order" to shut down Davis-Besse by 31 December 2001 and perform inspections on the vessel head.

An internal NRC memorandum dated the same day and exchanged between two technical assistants to Commissioners Nils Diaz and Greta Dicus reveals what happen next: "Sam Collins stopped by around 3:00 pm. RE: Davis-Besse status... Licensee does not want an order: perception; replacement fuel; financial markets... Licensee is trying to come with contingency plans if stopped at end of January or end of February. If February, would have fuel and contracts in place. Minimum impact. If January, significant."

The Order was suddenly withdrawn following a meeting with FE on 28 November 2001. Instead, Mr. Collins allowed Davis-Besse to operate until 16 February 2002.

Federal Investigations Mount As Davis-Besse Lumbers Towards Restart

The Davis-Besse damage and the negligence of the utility and the NRC has launched three federal investigations including a criminal proceeding against FE for providing false information and an internal investigation into how the NRC deferred its regulatory responsibility. At the request of Ohio members of Congress the U.S. General Accounting Office is also looking into the near-miss accident. A Republican-led Congressional inquiry has already quietly closed without any findings but the call for a Congressional investigation continues to be heard.

After going through an extensive "junkyard" of cancelled reactor construction projects, FE managed to find an unused B&W vessel head of similar vintage at Michigan's unfinished Midland reactor. The total cost to replace the corroded reactor lid, fix other equipment and buy replacement power now stands at US$400 million, mostly to be paid for by company stockholders. The utility sought restarting the reactor by early December 2002 but company projections are being delayed by an unraveling story of mismanaging an inherently dangerous industry.

Once again, NRC bowed to corporate concerns that idling a reactor with an early shutdown would be perceived poorly on the financial market. NRC will likely continue its business-as-usual approach to defer safety standards to protect the coffers of an economically struggling atomic power industry. The public interest community must remain focused on the fact that our safety is increasingly at risk from utilities running aging reactors harder while seeking to cut costs under diminishing regulatory oversight. Left unchecked, this kind of corporate advocacy over public safety becomes an increasingly dangerous bargain converging on nuclear disaster.

Source and contact: Paul Gunter, Reactor Watchdog Project, NIRS

SCANDALS AND LAWSUITS FACE UKRAINE'S ENERGOATOM

Amidst a heated political climate, where thousands have gathered in anti-presidential protests over the last few weeks, officials of the state-run nuclear monopoly Energoatom are being accused of misappropriation of funds, falsification of documents, and criminal negligence. In addition, a coalition of individuals and groups has sued the government over its plans to build new reactors at the Rivne and Khmelnitsky nuclear power plants, also known as K2R4.

(575.5449) WISE Ukraine - Ukraine's nuclear safety record has been undermined by new allegations of falsification of documents. Authorities are investigating several nuclear plant workers in western Ukraine for allegedly using fake diplomas to get high-paying jobs, according to the head prosecutor's office in the Rivne region (1).

In an investigation with an organized crime bureau in the Rivne Ministry of Internal Affairs, investigators have discovered that more than ten workers of the Rivne nuclear power plant occupying the posts from the head of shift to the senior operator of the machine room have no university degree (2).

Energoatom has denied the allegations, claiming that nuclear engineers must go through a rigorous licensing process that includes special training, medical and psychological testing, and an examination. Only then, the agency says, may a licensee be certified to work in a nuclear plant (3).

However, according to a statement by the deputy prosecutor general for Rivne Vasyl Kundiuk in the newspaper *Kievskie Vedemosti*, workers bought fake diplomas between 1999-2001 for as much as US$600 from the Odessa National Polytechnics University, claiming that they were specialists in nuclear power and thermoelectric power stations (4).

Doubts about the workers' qualifications arose when officials investigated a number of reports of technical problems at the plant, Kundiuk also said. The workers held a variety of engineering and administrative positions, ranging from senior operator to shift boss (5).

The apparent motive for the workers' ruse was higher salaries. They earned UAH 6,000-8,000 (US$1,100-1,500) per month at the plant - more than 10 times the average wage in Ukraine (6).

Following the results of the inspection, the Prosecutor of the Rivne region, Nikolai Golomsha, started criminal proceedings on the case of deliberate use of false documents and criminal negligence.

Also, Energoatom has been hit recently with another criminal case. The General Prosecutor's Office of Ukraine has brought a charges against officials of Energoatom for coordinating double payment for the supply of steam generators to the Zaporizhzhya nuclear power plant, according to the Director of the Department of Economic Law Lilia Nikolyenko.

According to one source, the preliminary damages caused by this deal made UAH 52 million (US$9.7 million), but the total expected damages are said to be almost UAH 200 million (US$37.4 million). Ms. Nikolyenko announced that this crime was committed in 1998 (7).

In August the General Prosecutor's Office of Ukraine brought a separate criminal case against several former directors of Energoatom, who worked in the company during 1999-2001 (8).

Meanwhile, NGOs continue to press Energoatom in court for environmental accountability and more public involvement in the K2R4 project. The NGO Public Committee for State Security faced Energoatom officials in a Kyiv district court on 7 October to ask for an injunction against the continued construction of K2R4. The committee believes that the construction of the power stations is illegal, as Energoatom has not received the approval of government environmental experts to go ahead with construction (9).

In a bizarre, possibly unrelated incident, the vice-chair of Public Control, Ruslan Syniavskyi, was murdered outside his apartment in Kiev.

The judge promptly dismissed the appeal to stop K2R4 construction, without explanation. Public Committee lawyers have acknowledged this case is an uphill battle, where the result may already be determined in the mind of the judge.

The Public Committee also began reading a list of one hundred applicants who wish to join the lawsuit, which now includes ten non-governmental organizations from around Ukraine. One group, Green World, was barred from joining the suit, but court officials have refused to explain why. So far, the court has accepted only five individuals as plaintiffs in the suit.

The court has adjourned until 21 October, when more of the hundred litigants will attempt to join the suit through a painstaking process that involves reading out a lengthy application before the court.

Another group, Public Control, had a similar appeal for an injunction against K2R4 rejected on 16 August, when they argued in the same court that licenses were illegal because they were issued without satisfactory assessments from environmental, sanitation, and fire experts. They are currently waiting for a chance to appeal the decision (10).

In a bizarre, possibly unrelated incident, the vice-chair of Public Control, Ruslan Syniavskyi, was murdered outside his apartment in Kiev on October 1st. Reports claim that he was shot with four to six bullets at point-blank range (11).

Alexei Tolkachov, the chairperson of the Public Committee for State Security, has said that the murder of Ruslan Syniavskyi was probably unrelated to Syniavskyi's group's involvement in antinuclear work in Ukraine. Tolkachov told NIRS/WISE Ukraine that Syniavskyi, while being a leader of the environmental non-governmental organization Public Control, was not working on the group's legal campaign against the completion of K2R4.

The completion of K2R4 is now estimated to be 85% complete. Ukrainian law requires the court to order construction to stop pending review of the group's petition and a decision. However, court officials would not confirm whether a stop order has been issued, and Energoatom has denied that it had received any court order to stop construction resulting from the lawsuit (12).

In May, the Public Committee for State Security called on the Russian Duma to not finance the K2R4 project. Russia agreed to extend Ukraine US$45 million in credits to complete the reactors, but so far has

failed to allocate any funds in their current budget. The cost of completion, based on estimates of Western experts, is as high as US$1.4 billion (13).

In a recent move, the European Bank for Reconstruction and Development (EBRD) agreed to a number of concessions to Ukraine, including a lower overall loan price-tag and lower electricity rate increases for consumers. The EBRD is involved in financing 25% of Ukraine's energy-sector projects, which currently totals US$1.28 billion (14). The Ukrainian government had originally also asked the EBRD for a loan for the K2R4 project, but withdrew the application last year (15).

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Source and contact: WISE Ukraine

GERMANY: CLOSURE OF OBRIGHEIM DELAYED BY TWO YEARS

The final shutdown of Germany's oldest reactor, Obrigheim, has been postponed by two years until 2005 when the coalition partners of the new German government reached an agreement on the controversial issue during the negotiations for a new government coalition. Delayed closure is in principle allowed in the nuclear phaseout agreement but has been criticized by delegates of the Green Party, one of the parties in Germany's new government after the elections of 22 September.

(575.5450) WISE Amsterdam - After months of so called "consensus talks" between electricity utilities and the German government (a Social Democrats/Green Party coalition) an agreement was reached on 14 June 2000 on the phaseout of nuclear energy in Germany (see *WISE News Communique* 532.5186: "Germany: government and utilities reach agreement on phaseout").

According to the phaseout agreement each reactor was allowed to produce a specified amount of electricity after which it has to be closed. Obrigheim is the oldest reactor (started operation in 1968) and therefore the first candidate to be closed, which was expected for early 2003 (as of last week a "credit" of 1,02 terawatt-hours (TWh) remained, enough for 80 days of operation).

As federal elections were held in September 2002, the electricity utilities could have hoped for a new (Christian-Democrats led) government, which might possibly soften the conditions of the phaseout agreement. This did not happen: although the Social Democrats lost seats, the Greens gained seats and so the Red-Green majority remained. Coalition talks were started to form a new Red-Green government.

Although Obrigheim's "credits" started to run out, the phaseout agreement includes possibilities to transfer remaining electricity amounts from one reactor to another. The transfer from older to newer reactors and smaller to bigger reactors is allowed as these transfers would bring closer the shutdown dates of these older and smaller NPPs. The transfer of electricity amounts from newer to older NPPs is only allowed after agreement by the federal government (chancellor and ministers of Environment and Economics) and the electricity utilities.

A government spokesman recently admitted that chancellor Schroeder had promised the night after the phaseout agreement was signed to allow delayed closure for Obrigheim. Without such a promise on the Obrigheim issue the industry would have refused to sign the agreement. But a spokesman of Green environment minister Trittin denied that he was aware of Schroeder's promise.

On 26 September, four days after the elections, Obrigheim owner EnBW formally applied for a delayed closure by transferring 15 TWh of electricity amounts from its Neckarwestheim II reactor to Obrigheim. That would be enough to operate Obrigheim at least until 2007, after the next federal elections.

The transfer of 15 TWh from Neckarwestheim II was not agreed in the coalition negotiations but on 14 October, the Ministry of Environment announced that Obrigheim could operate for another two years by transfering 5,5 TWh of electricity from the Philippsburg I NPP.

Although owner EnBW did not succeed in getting "credits" to operate Obrigheim until 2007 it ought to be satisfied with the present result of two more years. EnBW plans to sell shares in the company and any extra income is welcome. Besides, the future expense of dismantling the reactor can be postponed.

For the Green Party, the agreement on Obrigheim is a defeat as it has always strived for the shutdown of

the "Schrottreaktor" (junk reactor). Greenpeace fears that now the government has agreed with the postponement of Obrigheim's closure it might be difficult to refuse other requests from the utilities. This could then lead to credits being shifted from one reactor to another, postponing the closure of several reactors.

Environment minister Trittin is especially criticized as Obrigheim is presently operating without a proper license. Parts of the reactor were constructed in a way that did not correspond with the original licensed drawings. Yet the reactor is allowed to operate while the government conducts a procedure to investigate whether the law has been violated.

The government coalition agreement was signed on 16 October. The Greens are holding a delegates conference in Bremen on 18 October to approve the coalition agreement. Opponents of the Obrigheim deal in the Green Party are introducing a resolution at this conference, demanding the closure of the reactor in 2003. "Obrigheim will prove what the phaseout agreement is worth – or not", says the resolution.

Sources: phaseout agreement, 14 June 2000; *Die Tageszeitung online*, 9 and 11 October 2002; *Spiegel online*, 7, 9 and 14 October 2002; Press release Ministry of Environment, 14 October 2002; website Ministry of Environment (www.bmu.de).

Contact: WISE Amsterdam

NO NUKES ASIA FORUM BOOSTS STRUGGLE IN TAIWAN

Delegates from 9 countries came together in Taiwan for the once-a-year meeting of Asian NGOs fighting nukes: the 10th No Nukes Asia Forum (NNAF).

(575.5451) WISE Amsterdam – The Taiwanese environmental movement is mainly occupied with the fight against completion of the 7th and 8th reactors, which are being built at the fourth nuclear power station site, in the north-eastern tip of the island (Lungmen). During the NNAF, we visited the site and found out that the management of the project is still very confident of finishing the project. According to the builders the two reactors are almost 30% complete.

Also the harbor, specially built for the nuclear power stations (according to Japanese and Taiwanese sources, delivery of the reactor vessel by ship from Japan is expected next April) seems to be quite on track.

Although Taiwan's governing party (the Democratic People's Party, DPP) opposes nuclear power, anti-nuclear activists say that the whole structure and apparatus of the bureaucracy is still so dominated by people of the Kuo Min Tang (KMT), which was in power for the previous 50 years, that the new government fails to effectively halt the construction of the new reactors. There are also legal problems: at one point Lungmen was included in the budget and the law does not allow canceling the budget. And with not only bureaucracy but also the Taipower company being dominated by KMT pro-nuclear people, it is hardly possible to get the right information, do research, or counter the argument that so much money has been spent that it would be an economic disaster to halt construction.

Meanwhile the project itself is plagued by incidents, cost-overruns and delays (see *WISE/NIRS Nuclear Monitor* 570.5420, "Taiwan: welds falsified in new scandal at Lungmen".)

Nevertheless there is still hope that the reactors can be stopped. On 21 September, just a week before the first day of the NNAF, the famous activist and former DPP chairman Lin Yi-hsiung started a 1000-kilometer march demanding a referendum to decide upon the future of the project. The environmental movement is pretty confident they would win such a referendum and that a referendum would force even the KMT to abandon the project.

Participants of the NNAF joined the march (which is only pursued in the weekends and will thus take a year) for seven kilometers in Taipei, capital of Taiwan. Lin Yi-hsiung, whose wife and two daughters were killed by security forces in the 1980s when he was already fighting for democracy and against nuclearization of Taiwan, has insisted that the march must take place in complete silence with people walking in a single line, one behind the other.

So, although new and somewhat strange to at least the western participants of the NNAF, we walked in silence and in "goose-formation" through the capital, in a long line of several hundreds of people. Impressive!

After two days of presentations and exchange in Taipei and visits to the reactor site the NNAF group split up. A group visited Orchid Island (where low and intermediate-level waste is being stored) and the other groups visited the waste management plant next to the second nuclear reactor. Besides a volume-reduction center, the plant also has an incinerator where low-level waste and residues of the nuclear industry are burnt – causing concerns about the danger to local fishermen and residents.

Although never scientifically

connected to radiation the issues of the deformed fish – still being found near the outlets of the nuclear power stations – keep causing turmoil amongst Unions of fishermen and farmers.

As Taiwan has a special status (with no international recognition) there has never been any international investigation into the causes of the deformation of sea-life. The anti-nuclear power movement keeps supporting the fishermens' unions in their plea for full research and eventual compensation.

Although there was not much media attention for the visits by the NNAF participants, the local groups welcomed the international guests as they considered it a contribution to their struggle and a clear sign of solidarity.

This was also experienced by the group that visited Orchid Island, where the indigenous Tao people are still fighting to have the radioactive waste removed from their island. The new government has recently installed a new commission which will study the Orchid Island repository and look into alternatives for waste-storage. But, as the minister responsible for the commission explained during NNAF, "if we take the waste from Orchid Island we will have to put it somewhere else – no question that this will be a place where other people live and there is no justification to put the burden on other communities."

As the NNAF concluded in its final statement, only stopping the production of new nuclear waste can be a step in the right direction!

Source: WISE Amsterdam

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BRITISH ENERGY'S FINANCIAL PROBLEMS CONTINUE

Amergen, the US joint venture of British Energy (BE) and Exelon, has been put up for sale, yet British Energy's problems are far from over. Recent stock market falls have left a hole in its decommissioning fund and employee pension scheme. Greenpeace activists have occupied the roof of a building at Sizewell B in protest at the UK government's bailout of the company.

(575.5452) WISE Amsterdam – BE's financial troubles when prices in its U.K. market fell below the cost of production from its U.K. power stations, all but one of which are nuclear (see *NIRS/WISE Nuclear Monitor* 572.5432, "Will the UK government bail out British Energy?") BE's share price crashed, and a liquidity crisis loomed.

The UK government stepped in with a 410-million-pound (US$640 million) loan until 27 September (see *WISE/NIRS Nuclear Monitor* 573, "In Brief"). The loan was then renewed and increased to 650 million pounds (US$1 billion) (see *WISE/NIRS Nuclear Monitor* 574, "In Brief").

Amergen
Its U.S. joint venture Amergen (shared 50/50 with Exelon) bought up old reactors very cheaply, and so can still make money from investing in U.S. nuclear power – unlike some utilities (see "Taxpayer dollars for new U.S. reactors" on page 1).

Shortly before the UK government loan was renewed, BE put Amergen up for sale, with bidders thought to include Constellation, Entergy and Florida Power & Light. Any sale by BE has to be recommended by Exelon, and there has been speculation that if the price is suitable, Exelon could step in and buy the 50 percent stake that it does not yet own. Amergen owns three reactors: Clinton, Oyster Creek and Three Mile Island-1.

Shortfalls
The falls in stock exchanges worldwide have left BE with another problem. Its employee pension scheme faced a shortfall, which according to the scheme's rules must be covered by the company. This could cost it up to 13 million pounds (US$20 million) in 2003.

An even greater shortfall could be present in the decommissioning fund for its UK reactors. This fund works on a "discounted" basis: its value of 411 million pounds (US$625 million) announced in May 2002 is somehow supposed to grow twelve-fold (!) as share prices increase so that it can ultimately cover decommissioning costs estimated at 5.2 billion pounds (US$7.9 billion). Yet since May, share prices have fallen, not risen, and unless share prices climb rapidly soon, there may be an "exceptional charge" in the interim results on 6 November to make up for the losses.

Ironically, this wholly inadequate decommissioning "provision" gives BE leverage when dealing with the UK government, since they can claim that if British Energy goes bust and the reactors close early, the taxpayer would be left to pay the shortfall. They could then point out that it would cost the taxpayer much less (US$1 billion instead of over US$7 billion) to bail out BE with emergency loans as the UK government has done.

Other, non-nuclear utilities cannot use this argument. For example,

Texas-based TXU has withdrawn financial support for its loss-making subsidiary TXU Europe, leaving it with a "junk" credit rating. Although TXU Energi, the UK energy supply business which is part of TXU Europe, would probably also like a UK government loan, there are no signs of this happening as this *WISE/NIRS Nuclear Monitor* goes to press.

The European Commission is investigating whether the UK government's support for BE creates unfair competition in the European energy market (see *WISE/NIRS Nuclear Monitor* 574, "In Brief").

Roof protest
Meanwhile, on 14 October, nearly 120 activists entered the site of Sizewell B, BE's newest reactor in Suffolk, UK. They hung up a banner with the words "Boom or Bust?" and seven of the Greenpeace activists stayed overnight on the roof of one of the buildings on the site. The action was in protest against Government plans to build a new generation of nuclear power stations (see *WISE/NIRS Nuclear Monitor* 564.5384, "UK energy review keeps nuclear option open"). After seeing how easy it was to gain access to the site, Greenpeace also criticized the "pitiful" lack of security at Sizewell B.

Sources: Reuters, 25 September and 8 October 2002; *The Independent*, 15 October 2002; Greenpeace UK press release, 14 October 2002; BBC, 15 October 2002

Contact: WISE Amsterdam

ILLEGAL AID FOR EDF

On 16 October, the European Commission ordered Electricité de France (EdF) to repay 900 million Euros (US$877 million) in unfair state aid. EU Competition Commissioner Mario Monti said that because the French government has guaranteed that EdF will not go bankrupt, EdF has profited from below-market interest rates. The French government, however, has rejected the allegations. State-owned EdF has bought up utilities in many countries, seeking to position itself as a global leader before its home market in France opens fully to outside competition.
Forbes.com, 16 October 2002; Newsday.com, 14 October 2002

IN BRIEF

North Korea admits weapons program. North Korea has admitted continuing to pursue a secret nuclear weapons program, even though it had promised not to do so under the 1994 "agreed framework". This agreement was a precondition to the program under which a 2-reactor power station is being built in Kumho, with the U.S. providing fuel oil to generate electricity until the reactors are completed (see *WISE/NIRS Nuclear Monitor* 566.5390, "U.S. approves $95 million aid for 'axis of evil' country").

When confronted with U.S. evidence about the weapons program, North Korean official apparently said something like, "Your government called us a member of the axis of evil…your troops are deployed on the Korean peninsula … of course we have a nuclear program". Although the pre-1994 program was based on plutonium, the new program is apparently based on high-enriched uranium.
CNN, 17 October 2002

Exelon admits discrimination. Exelon, the largest U.S. nuclear utility, has admitted discriminating against a former employee at Byron nuclear power station who had raised concerns about safety, by not picking him for a new job in August 2000. The worker was later laid off because of corporate restructuring, according to Exelon. The U.S. Nuclear Regulatory Commission has now settled the issue with Exelon and issued an action plan. Within 6 months, Exelon must improve its employee training on safety consciousness and preventing discrimination, including special training for all Exelon and Amergen executives and plant managers.
Federal Register, 10 October 2002; *Nucleonics Week*, 10 October 2002

India admits problems. India's Atomic Energy Regulatory Board has admitted that radiation levels at Kakrapar Atomic Power Station – which it claims to be the best in India – are three times international norms. This implies that the other nuclear power stations are even worse. Christopher Sherry, research director of the Safe Energy Communication Council, commented: "The fact that India's nuclear regulator acknowledges that reactors in India are not operated to the standards of reactors in the U.S. or Europe is not much of a surprise, but it is very disturbing."
***The Christian Science Monitor*, 11 October 2002**

Bulgaria – EU showdown. The Bulgarian parliament voted on 2 October to reject closing reactors 3 and 4 at Kozloduy before the country joins the European Union. The vote was virtually unanimous: the one lawmaker who voted against did so because he said Bulgaria should not be talking about closure at all! This goes even further than the earlier government statement (see *WISE/NIRS Nuclear Monitor* 574, "In Brief") which insisted that the EU must send experts to inspect the reactors and re-evaluate its demand that the reactors must close by the end of 2006. The new move comes shortly before the EU is to set a target date for Bulgaria to join, so that a showdown over the issue is imminent.
***Nucleonics Week*, 10 October 2002**

UK dumping victory. Rolls-Royce has announced it will stop dumping nuclear waste in Hilts Quarry (see *WISE News Communique* 556.5329, "UK: Villagers battle Rolls-Royce nuclear waste dump"). The waste, from the production of reactor cores

for nuclear submarines, will be taken to the UK's main low-level waste dump at Drigg near Sellafield. David Lane from the Crich and District Environmental Group welcomed the news, but said, "what is going to happen to the 37 years worth of waste already in the quarry? How is that going to be made safe? These questions will need to be answered convincingly before the campaign is over."
BBC, 4 October 2002; Email from David Lane, 16 October 2002

Thailand victory. On 27 September, the Administrative Court ordered the Office of Atomic Energy for Peace (OAEP) to pay a total of 5.2 million baht (US$103,000) to 12 radiation poisoning victims (see *WISE/NIRS Nuclear Monitor* 573, "In Brief"). The victims had sued the agency for negligence after cobalt-60 sources from a discarded radiotherapy machine were left in a parking lot two years ago. The cylinders had no written warnings in Thai on them, and the judge said that if the cylinders had warning labels, no-one would have tried to steal them and cut them open for sale. Ida Arunwongse, an activist speaking in support of the victims, said the compensation was acceptable, although it fell far short of the 90 million baht (US$1.8 million) requested in the lawsuit. The OAEP said it would appeal the verdict.
***The Bangkok Post*, 28 September 2002**

Zorita to close in 2006. Spain's economics minister announced that the country's oldest and smallest reactor, José Cabrera – commonly known as Zorita – will close on 30 April 2006 (see *WISE/NIRS Nuclear Monitor* 572.5430, "Spain: Zorita re-fuels in anticipation of license extension"). Zorita's license has therefore been extended, but less than the 6 years the industry had hoped for, and now there is a definite closure date. Greenpeace Spain have called for the resignation of the president of the Nuclear Safety Commission (CSN), Teresa Estevan Bolivar, the only CSN member to vote against the closure proposal, for failing to be independent and hiding information about the safety of nuclear reactors in Spain.
***WNA News Briefing*, 9-15 October 2002; Greenpeace Spain press release, 9 October 2002**

Gorleben. The next Castor transport of high-level nuclear waste from La Hague in France to Gorleben in Germany is expected around 11 November, and will consist of 12 Castors – twice the number usually transported.
www.x1000malquer.de

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THE NUCLEAR MONITOR

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