

# NUCLEAR MONITOR

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

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## BRAZIL, GERMANY AND THE NUCLEAR ACCORD

In November 2004 the Brazilian and German governments agreed to substitute their nuclear cooperation accord with a broader umbrella agreement on sustainable energy cooperation. Long discussions between the German government and parliament had taken place before the German government finally requested, by diplomatic note to the Brazilian government, the conversion of the nuclear accord. Just days before the deadline was due to expire, the Brazilian Foreign Ministry accepted the proposal but nevertheless, the Brazilian government declared that it would not abandon nuclear energy.

(620.5656) **Urgewald** - The bilateral nuclear agreement is a relic of Brazilian military dictatorship and the "atomic euphoria" in the 1970s. It was inspired by the military leadership's desire to construct its own nuclear weapons. The bilateral agreement itself was intended to facilitate the construction of eight nuclear power plants and further nuclear facilities.

To date, only one plant has been built as a result of this co-operation mostly because of the major economic crisis affecting the Brazilian government since the early 1980s but additionally due to the escalation of construction costs. As a result, plans to expand nuclear energy were mothballed during the 80s and 90s.

The energy crisis in 2001, caused by insufficient rainfall and the lack of water in Brazilian dams, has changed the situation. Until now, up to 80% of Brazilian energy is produced by (large) hydropower facilities. Therefore, the old plans for expanded use of nuclear energy have once again been revived in order to reduce the dependency on hydropower.

Regarding the nuclear accord, the German nuclear industry has been applying pressure on the government to support the new nuclear euphoria in Brazil. In 2002, German public bank KfW showed interest, by "letter of intent", in financing the construction of the Brazilian nuclear power plant, Angra 3.

In reaction to this proposal, the German Foreign Ministry stated in a letter to German NGOs that the government's official position did not support the construction of Angra 3. In particular, it argued against the provision of public credits and investment guarantees by German companies.

In another reaction to this dispute, the coalition treaty between Greens and Social-Democrats in 2002 makes an explicit reference to nuclear treaties mentioning that "nuclear treaties should be reviewed in order to check if they should be cancelled or renegotiated" (coalition treaty 2002: 38).

The bilateral nuclear accord between Germany and Brazil was the first test case for this governmental promise made in 1998.

Every five years, either or both parties can terminate the German-Brazilian nuclear agreement. Already in 1994, parliamentarians from the German Social-Democratic party, then still in opposition, struggled to end the nuclear agreement, however, the then right wing government did not accept this proposal.

Five years later, despite the Social-Democrats and Greens assuming power, the new government still

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decided to continue the nuclear agreement.

In 2004, environmentalists in both countries lobbied the German government once again to definitively stop this bilateral nuclear co-operation. German parliamentarians also applied pressure on their government by pushing forward a resolution on this issue.

Only a few days before the deadline for the cancellation expired, the Foreign Ministry gave the Brazilian government verbal notice by asking for the substitution of the nuclear co-operation stating that the bilateral nuclear accord is "not any longer up to date" and that they are interested in converting the nuclear agreement by an overarching energy deal focusing on renewables, energy efficiency, reduction of energy consumption and emissions etc.

In response, the Brazilian Foreign Ministry considers the proposal of substituting the nuclear accord as "opportune" as it "has already achieved its most important objectives". It also considers the Memorandum of Understanding, which was signed between the Environmental Ministries of both countries at the Renewables Conference in Bonn in June 2004, as a

"solid base for future negotiations on a broader sustainable energy co-operation".

During his visit to Brazil in November, Foreign Minister Joschka Fischer affirmed that the bilateral nuclear accord was incompatible with Germany's drive to get rid of atomic power by 2025. Fischer told reporters that "in Germany we have a (nuclear power) phasing out policy and this is moving into our international relations" (Reuters, 19 November 2004).

Also, German parliamentarians from the Greens and the Social Democrats said that the exchange of these diplomatic correspondences symbolises the end of the nuclear co-operation between both countries.

The environmental spokesman for the Social-Democrats in the national parliament mentioned that the government's diplomatic note should be seen as an important signal to the Brazilian government in an attempt to convince them that a future without nuclear power is the better option for Brazil as well as for other developing countries.

Unfortunately, the fact that Brazil's government is ready to terminate the nuclear co-operation with Germany does not indicate willingness to halt its nuclear program. Brazil has already found new allies in its efforts to continue its nuclear ambitions and, therefore, no longer needs German co-operation.

Although the construction of Angra 3, which the Brazilian government is expected to decide on soon, still depends on equipment and services from Franco-German Framatome (formerly Siemens). It is now most likely that the financing and public guarantee for this work will come from France, even though the work will be done at the Siemens facility in Germany.

Despite several official statements from both governments confirming the end of the nuclear co-operation,

Germany's nuclear industry still continues its efforts to have nuclear energy included in the scope of the negotiations and new accord between Germany and Brazil.

Therefore, the question of whether or not nuclear co-operation could still be an option for future energy co-operation between the two countries will be decided definitively during negotiations due to start in early 2005.

The German Foreign and Environmental Ministries, and also parliamentarians of the Greens and the Social Democrats, must ensure that nuclear energy is definitively excluded from the new energy accord. These German political leaders should not accept any compromise in this regard for this would erode their political credibility and damage their reputation.

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**The next issue** (621) will be mailed out on 21 January 2005.

**We would like to wish all our readers and contributors the very best for the holiday season and success in all activities (campaign or otherwise) in 2005!**

## 25 YEARS AGO

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

### Then

In issue 6 of *WISE Bulletin* we wrote about decommissioning issues in Germany: "the government of Lower Saxony, in West Germany wants guarantees, from the companies that operate nuclear power stations, that the cost of decommissioning will be paid by the operators. These guarantees are wanted before a construction permit is issued". (*WISE Bulletin* 6, October 1979)

### Now

In the German state of Lower Saxony, four NPPs were built: Stade (now closed), Emsland (one reactor closed, one operating), Unterweser and Grohnde. In addition, three underground repository sites were selected for waste disposal (Konrad, Asse and Gorleben). (Informationskreis Kernenergie, 23 December 2004)

The decommissioning of nuclear reactors is a very complex and costly operation. Huge parts of the reactor internals and buildings must be disposed of as radioactive waste and to date only a small number of reactors have been completely dismantled. In all these cases the real costs of dismantling were higher than originally estimated. In many countries, dismantling will be postponed for decades to allow money to be raised from interest growth on decommissioning funds.

Early assumptions by the nuclear industry estimated the costs of decommissioning at 10-15% of original construction costs. Experience has since shown that these costs represent much higher percentages in reality. Decommissioning costs of the U.S. Yankee Row reactor increased from US\$368 million to US\$508 million due to the elevated costs for spent fuel storage. When the Spanish Vandellós I reactor closed in 1990, the decommissioning costs were estimated at US\$138.3 million. Three years later, this figure had tripled to US\$563 million. (*WISE News Communiqué* 394, 21 May 1993; *WISE News Communiqué* 485, 23 January 1998)

To guarantee that reactor operators are fully responsible for the dismantling of their reactors, sufficient amounts of money must be set aside and used only for decommissioning purposes. A 2003 Greenpeace study showed that European Union member states have adopted extremely different management systems for decommissioning funds. Some countries, such as France and Germany, even allowed operators to use money from such funds to finance company expansions. In such cases, there exists a risk that decommissioning money will no longer be available when it is really needed. (*WISE/NIRS Nuclear Monitor* 586, 25 April 2003)

The European Commission has failed to set common rules for decommissioning funds. Though the parliament had asked for separate funds managed by independent bodies, the Commission only recommended to set sufficient money aside. (*WISE/NIRS Nuclear Monitor* 619, 12 November 2004)

# UNSAVORY CONNECTIONS: SKEL- ETONS IN THE YUCCA CLOSET

**On November 14, 2000, Bechtel-SAIC won the contract to run the Yucca Mountain Project (YMP) in support of the U.S. Dept. of Energy's (DOE) efforts to design, license, construct, and operate the dump. The contract runs until February 12, 2006 and is worth US\$3.1 billion. (1)**

(620.5657) NIRS - Bechtel's countless tentacles throughout the military and commercial nuclear industries were covered in *WISE/NIRS Nuclear Monitor* #589's review of "Bechtel: Profiting from Destruction," 27 June 2003 (see full report at [www.citizen.org/documents/profilebechtel.pdf](http://www.citizen.org/documents/profilebechtel.pdf)).

J. Robert Beyster, former nuclear scientist at Los Alamos National Lab, founded Science Applications International Corporation and by 2002,

SAIC ranked 294 on the Fortune 500 list of largest U.S. companies. Surveillance work for U.S. spy agencies is its biggest source of revenue. SAIC is reportedly the single biggest recipient of contracts from the U.S. National Security Agency (NSA), and among the top five contractors to the Central Intelligence Agency (CIA). 5,000 of its 40,000 employees have security clearances; Beyster himself has one of the highest top-secret clearances of any U.S. civilian. SAIC spokesman Keith Nightingale, former U.S. Army Special

Operations officer, bragged to "Business 2.0" magazine "We are a stealth company. We're everywhere, but almost never seen." SAIC deployed data-mining programs that can process 500 million documents per second, used by spy agencies to sift through immense volumes of monitored phone calls, faxes, emails, and other communications. (2)

Amy Goodman of "Democracy Now!" has named SAIC an "Oily-garchy" award winner for its energy-related

corporate corruption and crony connections. Between 1990 and 2002, SAIC gave nearly US\$5 million in federal campaign contributions, which undoubtedly helped it achieve nearly US\$6 billion in revenues in 2002. SAIC won a US\$38 million contract from the Pentagon's psychological operations department in 2003 to run the Iraq Media Network (IMN), "considered the most ambitious and costly foreign media program ever undertaken by the U.S. government."

SAIC appointed Robert Reilly to run the Iraqi radio and television network. He had previously run the Reagan White House information operation backing the Nicaraguan Contras. But Reilly lasted only six months at IMN, when Iraqi staffers walked off the air to protest lack of funds and the network's irrelevance. Top Iraqi broadcasters were receiving a mere US\$120 per month and were only granted allowance for clothing above the waist (that is, on-camera), while SAIC "consultants" were being paid US\$273 per hour.

SAIC was fined US\$2.5 million in 1995 for cheating the U.S. Air Force for work on fighter jet cockpit displays. Venezuela's energy minister accused SAIC of refusing to provide the government with information needed to keep the country's oil refineries open as company management took part in the attempted overthrow of President Hugo Chavez in Jan. 2003. (3)

SAIC's revolving door with military and spy agencies is extensive. David Kay, former UN weapons inspector hired by CIA in 2003 to search for weapons of mass destruction in Iraq who uttered the now infamous words "We were almost all wrong," (4) was SAIC vice president until 2002. SAIC directors have included men from top posts at the Pentagon, CIA and NSA.

Retired U.S. Army General W.A. Downing is a case in point. Before becoming SAIC board member, he served at the White House National Security Council counter-terrorism office from Oct. 2001 to July 2002. He then lobbied for the CIA-backed Iraqi

National Congress headed by the now-discredited Ahmad Chalabi. Tellingly, in Jan. 2003 the Pentagon hired SAIC to coordinate a secret "government in exile" in Virginia, comprised of Iraqi expatriates, to plan the running of Iraq once Saddam Hussein was ousted. (2) Downing also served on the Committee to Liberate Iraq, a high-profile group of Washington insiders (including former U.S. Marine General, Bechtel president, and U.S. Secretary of State George Schultz, and former CIA director James Woolsey) calling for the invasion of Iraq in 2003. (5)

**Should companies implicated in such heinous crimes and corruption be entrusted with the responsibility of managing 70,000 metric tons of high-level radioactive waste at Yucca Mountain?**

Even less known than the omnipresent but invisible SAIC is CACI (originally California Analysis Center Inc.), which also makes money at Yucca. A NRC document recently revealed that CACI is responsible for compiling and processing DOE's tens of millions of pages of YMP documentation. (6) (See also *WISE/NIRS Nuclear Monitor #615*, "NRC rules against DOE Yucca submission," 17 September 2004) In addition, CACI also has contracts in occupied Iraq – and some ghastly skeletons in the closet.

CACI, based in Arlington, Virginia, gets about two-thirds of its money from the Pentagon and much of the remainder from other federal agencies, including DOE. (7) In 2003, CACI won US\$66 million for work in Iraq. (8) including for interrogation "services" at Abu Ghraib, scene of abuses against Iraqi prisoners by U.S. military personnel and private contractors, photos of which made international headlines last spring. Strangely, the contract was paid by the U.S. Dept. of Interior, helping not only to "hide" the spending away from the burgeoning costs of the Iraq war, but

also to effectively block any oversight of CACI's activities at Abu Ghraib. (9)

A leaked U.S. Army investigation concluded that at least one CACI employee was "either directly or indirectly responsible for the abuses." (7) The report held that CACI interrogator Steven Stephanowicz "made a false statement to the investigation team regarding the locations of his interrogations, the activities during his interrogations, and his knowledge of abuses." In addition, he urged U.S. military police officers to terrorize inmates and "clearly knew his instructions equated to physical abuse." (10)

Although the U.S. Army report recommended Stephanowicz be fired, he retained his position at the prison for months after the report was issued, and has thus far escaped prosecution by the U.S. military, because a private contractor cannot be court-martialed unless Congress has declared war, which it did not do against Iraq. (11) However, on 9 June New York-based Center for Constitutional Rights (CCR) filed a class action lawsuit in U.S. federal court on behalf of abused Iraqi detainees against CACI and Stephanowicz, accusing them of conspiring with U.S. military officials to hood and rape detainees, force them to watch their own fathers being tortured and abused to death, repeatedly beating them (including with chains, boots, and other objects), stripping naked and isolating them, urinating on and otherwise humiliating them, and preventing them from praying, and forcing them to violate their Islamic beliefs.

Jeffrey Fogel of CCR said, "CACI... perpetrated brutal human rights abuses to obtain information, a practice that is not only barbaric but leads to false confessions. The modern way to describe this is outsourcing torture; in the old days we'd call these people mercenaries." (12)

Incredibly, despite the widely documented allegations of abuse, the class action lawsuits and the worldwide scandal, the Pentagon

extended CACI's contract in Iraq this August. CACI could earn an additional US\$23 million. (13) CCR responded by filing for a preliminary injunction against CACI, asking the court to require all private interrogators to receive proper training in the laws on torture and how to conduct interrogations free of torture. CCR alleged CACI interrogators used attack dogs to threaten detainees, forced detainees to simulate sex acts, and that CACI improperly influenced the military procurement system. CCR reported detainees were tortured as late as July 2004, months after the initial release of photos and consequent international uproar. (14)

Should companies implicated in such heinous crimes and corruption be entrusted with the responsibility of managing 70,000 metric tons of high-level radioactive waste at Yucca Mountain?

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## U.S.: NRC GAMBLES WITH SAFETY

**Taking risks for monetary gain is called "gambling". In a move controversial even with its staff, Nuclear Regulatory Commission (NRC) released its Final Rule affecting how reactor operators purchase safety-related parts to ensure that systems, structures and components (SSC) will perform vital functions during operation or an accident. (1)**

(620.5658) NIRS - Effective December 22, 2004, the nuclear industry will use a "voluntary" rule (10 CFR 50.69) to "risk-inform" its quality assurance practices for SSC in a variety of safety functions. The rule, largely written by industry, promises hundreds of millions of dollars in savings on purchasing contracts formerly requiring "nuclear grade" components that can now be replaced with cheaper "commercial grade" parts.

The new rule marks an end to the latest chapter of NRC's tarnished record on the safety oversights on non-compliant safety parts. It provides industry with an exit strategy that

allows NRC to accept safety equipment that does not conform to the safety specifications reactors were licensed to maintain. A deteriorating and cost driven nuclear industry only amplifies concerns for public safety.

The safety problem goes back to the 1970s when the push to build and operate power reactors in the US led the American Society of Mechanical Engineers and the Institute of Electrical and Electronic Engineers to develop standards for products to maximize nuclear safety margins. Utilities could purchase parts intended for use in reactor safety systems from suppliers approved by "Quality

Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants" under 10 CFR 50 Appendix B.

These "nuclear grade" products were qualified and differentiated from commercial industry grade parts in order to ensure the quality control necessary to protect public safety. Utilities were allowed to purchase safety-related parts from commercial grade suppliers only if the parts were "dedicated". Dedicating parts involved qualifying the commercial parts to be suitable for use in safety systems so as to minimize the introduction of substandard parts.

With the worldwide collapse of the nuclear power market in the 1980s, nuclear vendors began shutting down production lines. "Nuclear grade" parts became scarce, forcing aging reactors to increase their reliance on "dedicated" parts. Allegations of substandard and "fraudulently marketed" safety components began to surface with greater frequency.

Documents show that NRC was originally skeptical of allegations and took no aggressive action to stop the flood of bad parts. As the result of a government-wide task force, NRC had to recognize that counterfeit parts presented a growing safety concern. From 1986 to 1989, NRC initiated a series of inspections of commercial grade dedication programs. Out of 13 different utilities' quality assurance programs for "dedicated parts," NRC found problems with 12.

The General Accounting Office (now Government Accountability Office or GAO) identified, in its 1990 report to Congress "Nuclear Safety and Health: Counterfeit Parts and Substandard Products Are a Governmentwide Concern", that NRC "is deferring its regulatory responsibility" by failing to take enforcement action against nuclear power utilities that installed "fraudulent" products (such as fasteners, pipe fittings, electrical equipment, valves, even bolts) in 64% of the nation's domestic power reactors.

GAO said "Nonconforming products can fail and result in death or injury to the public and workers, increase government program costs significantly, and waste tax dollars." (2) The government watchdog recommended "an aggressive regulatory posture concerning products used in plant safety systems, GAO recommends that the Chairman, NRC, reinstitute inspections of utilities' quality assurance programs and take appropriate enforcement actions when violations occur." (3)

Contrary to recommendations, NRC avoided enforcement action against utilities relying on counterfeit

products. NRC abandoned a commitment to Congress for more aggressive inspections and instead discontinued industry-wide routine inspection programs for fraudulent parts.

As a result of safety allegations originally raised in the mid-1980's and brought to the attention of President Ronald Reagan by Steven Comley and his Massachusetts-based whistleblower support organization, We The People, NRC Office of the Inspector General (OIG) began an audit of NRC oversight of the issue. In 1994, OIG found that NRC's decision to abandon routine inspections and inspect only on a reactive basis was neither technically justifiable nor documented. "Our review disclosed what appears to be conflicting conclusions about the safety implications of the assessments and pilot inspections findings, and questions about the overall adequacy of utilities' dedication programs." (4)

OIG noted that assessments of pilot inspections from 1991-1992 appeared similar to findings from 1986-1989, which were characterized as "significant safety implications." (5) NRC stonewalled the safety implications and countered that the agency was moving toward a more safety focused and less costly performance based inspection program.

By 1998, a Commission Paper directed staff to "risk inform" its regulations so as to reduce both its licensing burden and cost. The nagging counterfeit parts issue was at the top of the list in a rulemaking plan that would seek to put an end to controversy and questions on safety. Option 2, as it was coined, stated "As the primary part of this option, risk-informed definitions of 'safety-related' and 'important to safety' could be developed. This would lead to changes in the scope of what receives special operational and qualification treatment." (6)

The paper went on to say "Under implementation of Option 2, there could be extensive changes to treatment of SSCs, as those with low risk importance have their regulatory

requirements reduced and others not currently regulated have requirements added. To prevent excessive industry and staff burden, it is essential that an efficient regulatory process be employed as part of any implementation process." (7) So opened the next tortured chapter of NRC's "special treatment" of industry's cheating in a gamble with public safety.

During the subsequent rulemaking, three NRC engineers raised significant criticisms of changes to the quality control for procurement of reactor parts. A September 26, 2002 "Differing Professional View" (DPV) filed by a senior mechanical engineer raised detailed concerns about the treatment requirements for risk informing safety components as "not sufficient to provide reasonable assurance of adequate protection of public health and safety." (8)

According to the DPV, critical portions of the rule's language were deleted without valid technical justification on the "nebulous assertion that the rule language contained too much detail." (9)

Similarly, another detailed DPV filed the same day by another mechanical engineer stated that significant modifications made during a concurrence process resulted in a change that "fails to resolve safety concerns regarding the proposed rule in a sufficient technical manner." (10) The DPV stated that "the rule will be insufficient to maintain the reliability of SSC's to perform their safety functions under design-basis conditions." (11)

While the three engineers eventually agreed with the final draft rule forwarded to the NRC Commission, in a recent internal memorandum the engineers now say that the final rule "raises more safety concerns than the proposed rule that was released for public comment in May 2003." (12)

The three dissenting engineers state that the final rule "is not sufficient to ensure that the risk associated with the

elimination of the special treatment requirements is maintained acceptably small." (13)

NIRS has filed for the public release of all NRC documents relating to the DPVs and dissenting staff memos under the Freedom of Information Act.

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# EU INVESTIGATION REQUESTED INTO ILLEGAL AID TO FINNISH NPP

**The European Renewable Energies Federation (EREF) has initiated action before the European Commission in Brussels calling for an investigation into whether a planned project to construct the first nuclear power plant in Europe for decades has been made possible only with extensive state aid in violation of EU competition and other rules and regulations.**

(620.5659) **Dr. Fouquet** - The action is aimed at the proposed construction of a nuclear power facility in Finland by the Teollisuuden Voima OY (TVO) group claimed to cost a fixed price of EUR 3.2 billion (US\$4.1 billion) and involves a broad coalition of public and private financial and industrial participants, clients and supporters. (See also *WISE/NIRS Nuclear Monitor* 600.5563 "Financing New Nuclear Power Plants" and 612-613.5620 "Finnish Nuclear Madness")

In an action filed with the EU Commission on 14 December, EREF, a non-profit organisation based in Brussels which represents small independent producers of renewable energy and other support groups throughout the EU, called attention to what it regards as extensive non-compliance with EU law.

The letter filed by EREF called attention to possible infractions of EU state aid, export credits, procurement, safety and other regulations and requests the European Commission to investigate. The document lists German, French, Swedish and Finnish

entities in probable violation of EU laws and the governments in those countries for having authorised such illegal transactions.

The widespread and complex transactions involve the Finnish Power Company, a Franco-German industrial enterprise and public and private financial or export credit guarantee institutions in both countries and probably Sweden. Specifically cited are TVO, AREVA, Framatome-ANP, Siemens, Bayerische Landesbank (German Public Bank), COFACE French Export Agency) and SEK (Swedish Export Agency). The Swedish involvement is especially noteworthy since Swedish governments and parliament in the past decades and to date, as well as Germany, have decided to follow a policy of phasing out nuclear energy.

It also underlines that, contrary to EU law, such incidents of state aids in the form of low interest loans, export credit and other advantages are not reported in advance to the EU authorities for examination nor in connection with the authorisation procedure according to Article 41 Euratom Treaty.

The EREF complaint to the EU Commission charges "serious and orchestrated concertation and action" aiming "to reduce economic risks related to the projects...to a level which is unheard of in any power plant deal or any energy supply since liberalisation of the energy market in 1996." Without the numerous acts of assistance to the project, the complaint continues, "which have to be seen in the overall context of discrimination and distortion of the European energy market, this project could not have happened at the guaranteed purchase price and TVO could not sell the future electricity at the envisaged and already subscribed low electricity price."

The complaint by the renewable energy industry concludes that "structured energy distortions by the involvement of state authorities," in this project, "undermine any level playing field and render access to the electricity market on the ground of fair market conditions for any other electricity supplier impossible, creating respectively maintaining a distorted market." It reasons that the proposed price for the project's

electricity would amount to dumping.

It calls on the EU Commission authorities for competition, internal market and energy to open an internal investigation despite the fact that the

### **Turkey to get three EPRs?!**

Despite the fact that the European Pressurized water Reactor is an untried an untested reactor design yet to be made into a prototype, Turkey's Ministry of Energy has reportedly briefed journalists that the country will seek to build not one but three EPRs. Although, there has been no official confirmation of the deal as yet, Turkey is believed to have been offered a special deal on price - just as with Finland.

Associate Professor Dr. Tanay Sidki Uyar, President of EUROSOLAR Turkey, Vice-President of World Wind Energy Association, board member of Black Sea NGO Network and head of the energy section at Marmara University told the *WISE/NIRS Nuclear Monitor* that Turkey did not need nuclear power. According to the professor, Turkey's solar, wind, small hydro, geothermal and biomass potential is such that it could provide up to four times the existing inefficiently used energy demand.

Turkish NGOs have expressed horror at the reports of their government importing nuclear disaster to their country and have quickly reactivated the Platform Against Nuclear Power to engage the public and secure their involvement in the fight against this new nuclear threat.

It is thought that the Turkish Prime Minister made the deal with Paris on a visit in July. Turkey has already bought 36 Airbus aircraft from Paris and the additional purchase of three nuclear reactors is alleged to have won Turkey France's support in its efforts to gain entry into the European Union.

**Prof. Dr. Uyar by email, 22 December 2004; Réseau "Sortir du nucléaire" by email, 17 December 2004**

previous Commissioner for Energy had publicly referred to the project positively.

The action is aimed simultaneously at challenging perceived infractions to European and other rules and regulations that, if carried out, would provide unfair and uncompetitive advantage to a project and energy source that would otherwise not be competitive or economically viable. Despite the claims of its supporters and beneficiaries, these unfair and illegal advantages conferred on the project a large number of sometimes hidden privileges unavailable to renewable and other competing energy sources and projects.

The development could be regarded as a crucial test of whether nuclear power is a viable energy source in the future without massive aid and benefits that are not available to other energy sources and which so distort the objective of a liberalised, open and fair European energy market that it calls the entire system into question.

The main support schemes questioned as state aid in this complaint are:

#### **- A syndicated loan:**

Bayerische Landesbank (BLB) gave, in 2003 or early 2004, a EUR 1.95 billion (US\$2.5 billion) syndicated loan (more than 60 % of the whole fixed price) with interest of just 2.6% to the Finnish company TVO for the purchase of the Framatome ANP 1600 MWh EPR (European Pressurised water Reactor) at fixed price of EUR 3.2 billion (US\$4.1 billion). The transaction in question is a syndicated revolving credit of EUR 1.95 billion with two tranches maturing in 2009 and 2011 respectively given to TVO by Bayerische Landesbank for purchase of this fixed price turn-key contract. The other banks involved are Handelsbanken, Nordea, BNP Paribas and JP Morgan.

#### **- A generous export credit guarantee**

The French Government budget via COFACE (French Export Credit agency) gave over EUR 610 million to AREVA, the French public parent company of Framatome/ANP, paid from budget

reserved for non marketable risks and designed for deals in countries with high political and economic instability

#### **- A generous financial support**

By SEK from Sweden to the TVO project, which has up to now never been publicly detailed or specified by the Swedish Authorities but mentioned in the annual 2003 report of SEK

#### **- Price dumping**

The FRAMATOME ANP tender offer with the above fixed price constitutes price dumping thus distorts the market. It is evident that real costs will be much higher than EUR 3.2 billion. Already mandatory supplementary security demands by the Finnish nuclear authorities will increase costs substantially. Increased material costs such as for steel will also add to the burden. The International Energy Agency (IEA) had already in 2003 questioned the economic viability of this project. IEA emphasised that Olkiluoto 3 (the Finnish plant) will be "the first atomic reactor ever built in a deregulated market, which can cause unforeseen problems". The report also stressed that all over the world atomic energy projects have exceeded the calculations planned and they have not been able to keep to the planned building schedules. [1]

- A special transaction between TVO and Finnish communal authorities to long term obligation to purchase this electricity at a specific price violates, in EREF's view, EC public procurement rules.

For EREF it is evident that Finland was chosen as a necessary test ground for a new push towards nuclear power at all cost, especially at a dumped fixed price offer by Framatome ANP to TVO in Finland.

Dr. Dörte Fouquet of the Kuhnier sprl law firm, Brussels, presented the complaint on EREF's behalf.

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## **An Appreciation: Ted Taylor: Scientist, Man of Conscience: 1925-2004**

On 28 October, Dr. Theodore B. Taylor died of coronary artery disease complications. He was 79 and had lived in Wellsville, New York. He will be greatly missed by those who were privileged to have known him.

Dr. Taylor was first known as the brilliant young theoretical physicist at Los Alamos National Laboratory who conceived of, and designed, small, efficient atomic bombs. In addition to designing nuclear arms for use as battlefield weapons, he co-developed the TRIGA research reactors still operating at universities. F

Following the Soviet Union's launch of Sputnik 1, Dr. Taylor directed Project Orion, to develop a space vehicle powered by nuclear devices for peaceful space exploration. The Limited Test Ban Treaty of 1963, however, prohibited the essential testing for the project. His transformation from nuclear weapons enthusiast to outspoken nuclear energy critic accelerated in following years.

He came to understand that his "suitcase bombs" were changing the nature of the Cold War. International fears were that the US and USSR might use their powerful missile-delivered weapons of true mass destruction, devastating vast areas, initiating Nuclear Winter. Taylor later said, "The real driving force in the nuclear arms race is the weaponeers," observing that they had only to present glowing expectations for every new weapon to obtain approval and funding.

Dr. Taylor's development of compact portable bombs created a different kind of nuclear threat: the dangers of nuclear proliferation. He distinguished between hazards of active and "latent" proliferation, the latter inherent in the entire nuclear production system. He warned that the fuel chain, from mining to waste isolation, for military and "peaceful" purposes, held endless possibilities

for penetration of safeguards and theft of bomb materials. He also realized that thefts of fissile materials and construction of small "home-made" atomic bombs posed an ever-increasing threat of uncontrollable proliferation: future criminals and ideologically-driven terrorists would find small-scale crude devices - "dirty bombs" - effective and irresistible.

In 1965, Ted Taylor received, among many honors, the prestigious Ernest Orlando Lawrence award for his "Outstanding contributions to the design of nuclear weapons" and "role in development of TRIGA research reactors." He served in the Defense Department and as Deputy Director of the Defense Nuclear Agency.

But soon thereafter he became an outspoken, and knowledgeable, critic: a critic condemning his own creations. From his intrigue with the potential for good that he thought atomic energy held, he became deeply concerned about explosive growth of both weapons and commercial applications of the atom.

He concluded that his country "is prepared...to launch nuclear weapons that would kill millions of innocent bystanders," adding, "...this is... mass murder that cannot be justified under any conditions."

He worked successfully with local and national groups to prevent new, unlined soil trenches for so-called "low-level" radioactive targeted for Western New York and around the country in the late 1980's and 1990's.

A quiet, mild-mannered man, he continued to advise fellow scientists, presidents, and the public on risks of future nuclear terrorism, on the vulnerabilities of nuclear power plants, and on the kinds of nuclear safeguards nations would need in the future.

He formed his own consulting firms, analyzing the consequences of global warming and the impending decline in

availability of fossil fuels, and became an ardent proponent of the necessity to develop reliance on alternative energy sources.

The writer John McPhee profiled Ted Taylor in his acclaimed study, *The Curve of Binding Energy: A Journey into the Awesome and Alarming World of Theodore B. Taylor*, first published in *The New Yorker* magazine.

Dr. Taylor's many publications included *The Restoration of the Earth* (with C.C. Humpstone, 1973); *Nuclear Theft: Risks and Safeguards* (with Mason Willrich, 1974); and *Nuclear Proliferation Motivations, Capabilities and Strategies for Control* (with T. Greenwood and H.A. Feiveson, 1977).

In the mid-1980s, on a frigid day in Washington near the White House, a group of anti-nuclear activists gathered to support a fast for peace by a fellow scientist. At the margin of the crowd stood Dr. Taylor, a sombre expression of infinite sadness on his face.

He said he feared President Reagan would reject any arms control agreement in his upcoming meeting with Secretary Gorbachev. Few people on earth understood so well the importance of nuclear control and a non-proliferation treaty. Late in his life, he told a colleague, "I am searching for the truth as long as I can."

**NIRS**

# A CONCERNED U.S. CITIZEN'S NEW YEAR WISH: PERMANENT SHUT DOWN AT SAN ONOFRE!

**Right now, San Onofre Nuclear Waste Generating Station is in a bad way. Nearly everything in the whole facility is cracking apart. It is embrittled, frail, old. Its bones are hardened. Its arteries are clogged and stiff. It keeps popping and poofing, bursting and spilling, leaking, spraying, steaming, venting, dripping, gushing, pouring out poisons into our environment.**

(620.5660) **Russell D. Hoffman** - The tritium released from the plant alone is a major environmental concern, especially for swimmers and surfers in the water up and down the coast from the plant. Tritium is readily absorbed by all parts of the human body because, chemically, it is just radioactively altered water. Tritium has a half-life of about 12 years and while it does occur naturally, there is no good reason on earth to increase the dose to humans.

In the course of its daily operation the plant also releases Cesium-137, Strontium-90, uranium, plutonium (both in a variety of isotopes) and over 200 other radioactive "daughter products" created by the nuclear chain reaction. The nuclear industry and the lame duck, industry-flunky "regulators" who watch it assert that these releases are harmless. It is foolhardy to agree with them when so many of the mechanisms for damage by radioactivity is well known in the scientific community and undeniable to any unbiased observer.

When the nuclear industry started promoting its dogma about how clean nuclear power was, far fewer of these facts were established, such as the role of "free-radicals" in the creation of cancer. Now, these things are much better known, but yet the entire nuclear industry refuses to acknowledge these issues. They still try to convince people that a little of their radiation, scattered into your body randomly through pollution, might even be good for you. It is not. One atomic decay inside your body can directly destroy 20,000 or more chemical bonds; creating tritium inside your body, for instance, or

breaking apart a delicate protein — the very structure of life. One damaged DNA strand can lead to foetal deformities or cancer.

San Onofre's "steam generators" all need to be replaced — two per plant at two plants. Total cost is conservatively estimated by the company at about US\$600 million — it will probably be a lot more. And they'll have to slice into the uni-body "containment dome" to do the replacement, seriously and permanently weakening that structure. Additionally, the replacement parts, unlike the originals (which were never supposed to need to be replaced, but aged much more rapidly than expected), won't even be made in America, subject to American inspections, or made to American standards of quality (what id left of those standards, anyway).

San Onofre's "water heaters" also all need to be replaced (about 30 per unit). Cost? Just another US\$7 million for each plant, but still there is more:

- Pipes have been cracking — probably they ALL need to be replaced. In August, eroded piping led to an accident in Japan that killed five workers (see also WISE/NIRS Nuclear Monitor 615.5635 "Mihama, Japan: Tracking down the truth"). The cost of replacements could reach into hundreds of millions of dollars, which would be better spent on renewable energy solutions.

- Strapping for crane lifts has aged and failed. This reportedly costs over US\$5 million to fix.

The plant is a wreck waiting to happen. Radiation ages things (including

humans). Salty air destroys most metals. San Onofre is breaking down far faster than "industry standards" because although many nuclear reactors in America use fresh-water lakes and rivers for coolant, San Onofre uses seawater. But despite San Onofre's accelerated ageing, the plant's owners are usually behind the eight ball when it comes to repairing things. "Let it fail, then fix it quietly" seems to be their operating motto.

Transformers have exploded due to old age, throwing shards of glass onto the nearby railway and freeway. Old breakers have exploded and burned, causing hundred million-dollar outages. (But in keeping with their motto, the 130-or so similar breakers were NOT replaced.)

Workers have been exposed to radiation. Releases to the public have occurred, and there have even been threats of domestic sabotage directed against the plant — for example, from an extremely well-armed disgruntled worker who knew the plant intimately because he had broad access privileges before being demoted and eventually fired.

It is time to SHUT SAN ONOFRE DOWN. Its power is replaceable. Our land and our lives are not.

The choice to keep San Onofre's twin reactors generating 500 pounds of extremely toxic waste every day because we are too lazy to build large-scale renewable energy systems is a deadly sin we should stop committing. But even if we did not convert to renewable energy, consider this: it is fairly easy to prove that nuclear power does not generate ANY "net" energy

whatsoever, anyway! This is reason enough to get rid of the plants. This assertion stems from the incredibly energy-intensive processes needed to mine and refine uranium into fuel, as well as construction costs (and reconstruction costs), and dismantling costs. But there are even more costs — for example, the energy that will be needed to take care of the waste for the next million years, including the dismantled pieces and the "spent" fuel. Such equations also ignore any energy expended on caring for the millions of sick and dying that would result from a serious nuclear accident.

Nuclear energy is a financial rat-hole as well as a terrorist's primary target.

San Onofre makes money only for its immediate owners, who are practically GIVEN uranium fuel by the U.S. Government, which also promises (but so far has failed) to take it away after it has been turned into radioactive waste (at great profit) by Southern California Edison.

San Onofre can and should be shut down NOW. While operating, it is thousands of times more vulnerable to terrorism or forces of nature than when it is shut down, even though the fuel will still be there long after the last watt of electricity is produced, and it will still be a danger. But it is much more dangerous now, and now is a perfect time to cut our losses.

[The author is an independent researcher on nuclear power and has written thousands of essays on the subject with his work published in several different languages, in over a dozen countries over the past three decades.]

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## ICRP SHOULD RECOMMEND MORE PROTECTIVE RADIATION STANDARDS

**This is the third article in NIRS' series on Draft Recommendations of the International Commission on Radiological Protection (ICRP-2005) and reviews the history behind radiation protection standards and CERRIE Majority and Minority Reports criticizing ICRP assumptions.**

(620.5661) NIRS - In 2001, the British Environment Minister established the Committee Examining Radiation Risks of Internal Emitters (CERRIE, pronounced "cherry"), to review recent radiation research and adequacy of public and worker standards. The committee was comprised of representatives of the nuclear industry, the radioactive recycling industry and nuclear critics.

Some of the Committee grew dissatisfied and produced a Minority Report. Both the CERRIE Majority and Minority Reports were published in October 2004 and address many of the issues raised in the Draft ICRP-2005. Following a brief history of radiation standards below is a summary of some of the relevant conclusions of the CERRIE Reports, especially as they pertain to ICRP's recommendations.

### Historical Context

In 1895, Wilhelm Roentgen identified ionizing radiation, x-rays, and their significance for scientific research and, later, for medical purposes. During the following fifty years, uses of radioactive materials proliferated,

often with little understanding of the harmful effects on biological organisms. Doses in the tens of rem (hundreds of milliSieverts, mSv) were tolerated, legally, without realization of the potential injuries that appeared two or more decades later.

Following the splitting of the atom during World War II, the Manhattan Project's race to develop an atomic bomb, and the bombing of Hiroshima and Nagasaki, adverse impacts of radiation exposures became a serious medical — and political — issue. In the U.S. in the early 1950s, the National Council on Radiation Protection and Measurements (NCRP), a private, nuclear advocacy, advisory body, undertook a review of data on both external doses (received by Japanese survivors and collected by the Atomic Bomb Casualty Commission) and internal exposures from ingestion and inhalation.

Dr. Karl Z. Morgan, chair of the NCRP internal dose subcommittee, found determination of the internal distributions and organ impacts far more complicated than anticipated. As

U.S. commitment to Cold War weaponry grew, the NCRP was pressed to submit recommendations to the government but did not permit completion of the more difficult analysis on the internal effects of radioactive materials that lingered in the body.

At that time, the concern was genetic impacts, rather than cancers. In 1958, the NCRP recommended an annual dose limit of five rem (50 mSv) for workers, assumed to be acceptable because it was equivalent to dose limits for radium. For the public, dose levels one-tenth as great (0.5 rem, 500 mrem; or 5 mSv) were deemed safe enough (by the nuclear advocates).

The U.S. Federal Radiation Council published guidance in 1960, as public concerns about atmospheric bomb test fallout and commercial uses of nuclear energy grew. The public exposure limit was reduced to 100 mrem/yr (1 mSv), and questions arose about the assumption of a "safe threshold" of radiation exposure. In 1990, the U.S. National Research Council Committee on the Biological Effects of Ionizing

Radiation (BEIR V) accepted the linear no threshold hypothesis of the relationship of dose to response (LNT). (See *WISE News Communiqué* 326-327.3261 "Beir-V Report Reassesses Radiation Risks")

Now the ICRP proposes to reduce radiation protection in several ways (see *WISE/NIRS Nuclear Monitor* #618 and #619), even though recent research indicates worse health effects from protracted, internal, low dose exposures. The CERRIE Reports address some aspects of the current understanding of radiation-related risk.

### **CERRIE**

The Committee Examining Radiation Risks of Internal Emitters (CERRIE) was tasked to consider present risk models for radiation and health that apply to exposure to radiation from internal radionuclides in light of recent studies, and to identify any further research that may be needed. The CERRIE Majority Report recommends important and necessary

### **Public participation**

The deadline for public comment is **30 December 2004** (Note: Time zone at ICRP in Sweden is ahead of North and South America).

ICRP prefers comments uploaded onto its website at [www.icrp.org](http://www.icrp.org) - full link is <http://www.icrp.org/remissvar/listcomments.asp>.

ICRP will accept comments by e-mail to [Jack.Valentin@ssi.se](mailto:Jack.Valentin@ssi.se) OR [scient.secretary@icrp.org](mailto:scient.secretary@icrp.org) but prefer posting on the website to allow other to view.

Draft ICRP 2005 is at [www.icrp.org/docs/2005\\_recs\\_CONSULTATION\\_Draft1a.pdf](http://www.icrp.org/docs/2005_recs_CONSULTATION_Draft1a.pdf).

Please comment to ICRP by the deadline. To view the CERRIE Report (discussed in article) visit [www.cerrie.org](http://www.cerrie.org) and to see the executive summary and order the CERRIE Minority Report go to <http://llrc.org>.

further research and elucidates certain shortcomings of ICRP. However, the final report was published under threat and fear of litigation for allegation of factual misstatements. As a result, full representation of views was not allowed in the report and there were very few subjects on which the committee members actually reached consensus. A subgroup of the Committee produced the CERRIE Minority Report 2004.

### **Biological Evidence: Conclusions and Further Research Needed**

While a consensus eluded the CERRIE committee in a number of scientific areas, many of their recommendations for further research are sound, necessary, and immediately relevant to protection of humans from radiation exposure.

- In general, the committee did not find evidence for threshold doses of radiation and the Committee rejected hormesis (the claim that a little radiation is good for you).

- CERRIE recommended more study on both genomic instability (damage from radiation shows up in its descendants after a cell has repaired and reproduced) and bystander effects (cells untouched by radiation show damage as if they were hit). Both effects see more damage at low doses.

- The mechanisms for genomic instability, bystander effect and mini-satellite mutations (a specific type) may explain effects seen at low doses that were not expected and are not found at higher doses. In addition, these phenomena may vary with each individual and could raise ethical questions of radiation exposure. The committee did not arrive at any consensus on this topic.

- The CERRIE committee recognized that, while it is preferable to have studies peer-reviewed and published, there is a tendency within this system to reject evidence that does not conform to existing paradigms.

- CERRIE also recognized that data protection is making research more

difficult to execute.

- CERRIE recommended more integration of data collected since 1990 into ICRP recommendations, and further study of microdosimetry, cancer mechanisms and germline mini-satellite mutations.

- There is evidence that Sr-90 may preferentially bind to chromosomes rather than evenly distribute in cells and may also prefer cellular DNA. The committee strongly recommends more research on this and other radionuclides that show unexpected properties, such as tritium and auger emitters, for which they say ICRP has underestimated risk.

- Indeed, the actual concepts of absorbed dose become questionable, and sometimes meaningless, when considering interactions at the cellular and molecular levels.

- CERRIE recommended more use of direct measure of damage to exposed people, called biodosimetric measurement, although this has limitations.

- ICRP dosimetric models need to account for insufficient modeling of damage to cells and molecules, particularly for short-range radiation.

- CERRIE recognized that effective dose (a calculation of radiation exposure) says nothing about the way in which the radiation dose is received, or what organ is most exposed or for how long. Therefore, the ICRP risk estimates present an incomplete picture of radiation damage.

### **Epidemiological study: further study and conclusions**

The committee investigated bomb test health data, data from reprocessing sites such as Sellafield, and nuclear industry workers and their children, and health studies after the Chernobyl explosion in Europe and the Former Soviet Union.

In general, the committee concluded that low-level intake of radionuclides leads to some increased risk of adverse

health effects as a result of the internal irradiation of organs and tissues. There was some dissent on this. Some members felt that risk models are quite accurate while others thought that current risk models may well underestimate risks from intakes of certain radionuclides, but by modest amounts, while two members felt risks are substantially underestimated.

- CERRIE concluded that an increase in infant leukemia was prevalent in populations exposed to Chernobyl nuclear fallout. The committee was divided as to whether or not current risk estimates would have correctly predicted or underestimated the incidence.

- For childhood leukemia, the committee concluded that official risk estimates did not underestimate incidence. Two members strongly dissented partially due to data mixing which can dilute evidence of disease.

- ICRP needs to recognize the uncertainties involved with dose and risk estimates. The committee hopes this would lead to identification of situations where the precautionary approach might be appropriate.

CERRIE and its Dissenters agreed that ICRP's risks might be underestimated. The disagreement is over the magnitude or mechanism of that under-estimate.

### **CERRIE Minority Report**

Two scientists on the panel, Dr. Chris Busby and Mr. Richard Bramhall, and one of the Secretariat, Dr. Paul Dorfman, produced the CERRIE Minority Report as the Majority Report did not reflect their views. One important concern is that epidemiological studies have inherent flaws that make the final, peer-reviewed reports biased.

The minority disagrees strongly with the main report's conclusions that risk models are fairly accurate. The dissenters raise concerns about epidemiological methods used in studies referenced for this conclusion. Using the example of infant leukemia

in Greece after the Chernobyl explosion, Busby et al said that studies are often discounted when they find that the highest cancer rates are not associated with the highest doses. The authors argue that rather than discount this observation, which fails to fit any favored theories such as LNT, science should let the actual disease incidence findings guide them to investigate why these cases may be different from the theoretical model.

The argument between the deductive and inductive methods is something that CERRIE alludes to briefly and then discounts by saying this discussion was not within the remit or expertise of the committee. However, choosing one of these methods over the other could very well result in entirely different interpretations of the same data. Choosing to use one logic method over the other is fundamental to scientific investigation and understanding of that investigation.

The minority report concludes that there could be errors of magnitude in the current risk assessments due to energy deposition at the cellular level. The authors then examined studies, which were reviewed by CERRIE, offering different interpretations of data and conclusions, often adding more complete background and contextual information than was offered in the first report. The minority identifies issues such as inappropriate data mixing, limiting assumptions about the linear-no-threshold theory, and problems with recording human disease.

In a number of cases, including health studies on weapons testing and in coastal areas, Busby et al recommend further study since the Committee disbanded before being able to complete these assessments. Further, the minority said that CERRIE majority under-reported on important discussions in some cases.

The minority members sum up their view: "We are in broad agreement with elements of the main report's (CERRIE) discussion on genomic instability and the bystander effect but we dissociate

ourselves from any suggestion that they may indicate that current standards are too stringent. This is because we believe that there exists sufficient epidemiological evidence to demonstrate deleterious health-effects from radioactive pollution."

Busby et al conclude that in the short term, the evidence of harm and the scientific insecurity of the ICRP methodology are sufficient to trigger application of the Precautionary Principle in respect of releases of radioactivity. Long-term research is needed on the implications of these mechanisms for radiation risks, from both internal and external radiation.

Considering the conclusions reached by both the CERRIE Report and the CERRIE Minority Report, research must be continued and, in the interim, existing standards must not be weakened. Precaution demands, instead, that standards need to be all the more restrictive, and that radioactive materials and wastes already deregulated should be brought under control.

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# IN BRIEF

**Chernobyl survivors hunger strike.** A group of St. Petersburgers exposed to dangerous levels of radiation while helping bring the 1986 Chernobyl disaster under control, began a hunger strike on 3 December demanding an increase to compensation payments. The eight workers based in Sestroretsk said the government had raised the payments only once since 1997, by 19% in 2000, but that inflation had greatly reduced the value. In 1997 victim Sergei Kulish received compensation of about 2,000 roubles a month (about \$330 in 1997). Now he gets 2,500 roubles (worth just \$88.60 today). After being given assurances that the Supreme Court would consider their demand, the men ended their hunger strike on 7 December.

**St. Petersburg Times, 3 & 10 December 2004**

**Tibetan students rally.** 15 Indian-born Tibetan students of the Tibetan Student's Alliance have set out on an all India motorbike rally to demand that China stop dumping nuclear waste in Tibet. The rally will pass through more than 28 major cities in India, covering a distance of about 8878-km and will conclude in Delhi by mid January 2005. The tour will also raise the important issue of the violation of human rights in Tibet.

**www.Phayul.com, 4 December 2004**

**France: anti-nuclear accident simulation.** Action group Tchernoblye simulated a nuclear disaster at the Blayais NPP by launching balloons from the site. Each balloon contained a card that people could send back to the group. The results were used to give a clear picture of how the possible contamination following an accident would spread. One of the balloons was found hundreds of kilometers from the plant.

**Tchernoblye press release, 6 December 2004**

**Russia to stop providing India with nuclear fuel.** Russia will no longer be able to provide nuclear fuel for India's

Tarapur nuclear power plant due to restrictions imposed by the Nuclear Suppliers Group (NSG), of which Russia is a member. Alexander Rumyantsev, Director of the Russian Federal Atomic Energy Agency, explained that Russia had been able to supply 50 tonnes of enriched uranium to the two-unit Tarapur plant in 2001 on the grounds that it was an extreme case - India had no other fuel to operate its 160 MWe BWRs - and would not be repeated. Russia's decision could scupper plans for it to build two additional 1000 MWe units at the Kudankulam nuclear power plant.

**WNA News Briefing 04.49, 5 December 2004**

## **Security concerns at UK plant.**

Security at the Hartlepool nuclear power plant in the UK has been questioned after armed men reportedly roamed the site unchecked. Councillors have demanded answers after reports that people hunting rabbits with dogs and air rifles are able to access the grounds of the plant unchallenged. Unauthorised hunters scaled a perimeter fence to gain access to the site. British Energy denies the claims insisting the plant is secure.

**Hartlepool Today, 6 December 2004**

## **Row over Dutch European**

**Commission-owned plant.** Serious safety breaches were found at the EU Commission-owned nuclear plant in Petten, the Netherlands, but it has emerged that authorities blocked further investigations. A police raid in September 2003 revealed dangerous abuses of environmental and safety standards at the reactor, which is owned by the European Commission's Joint Research Centre. Dutch newspaper *De Volkskrant* reported that the Dutch government had hindered further judicial investigations fearing a diplomatic incident. Since Commission employees at Petten have legal immunity, investigations by the Dutch public prosecutor were hastily stopped in March 2004.

**www.EUobserver.com; www.dw-world.de, 6 December 2004**

**Chernobyl cancer probe in Hungary following train deaths.** Hungarian State Railways (M-V) has denied that carriages coated in radioactive dust coming from the Soviet Union were washed in Hegyeshalom, a city on the border of Hungary and Austria, shortly after the explosion of the nuclear reactor in Chernobyl. The Chief Health Office (CHO) started investigations in Hegyeshalom, after a regional newspaper published articles based on reports from local citizens, about the high incident of cancer-related deaths in the city in the early 1990s. M-V claims that official records show the examination of the trains in 1986, which found only two carriages contaminated, which were turned back immediately. According to the regional newspaper, employees were not told about the circumstances, nor were they equipped with the adequate protective clothing. Most have since died at relatively young ages. M-V has initiated a committee to analyze the situation.

**The Budapest Sun, 16 December 2004**

## **Stalin's waste legacy haunts**

**Tajikistan.** The former Soviet republic of Tajikistan is on the brink of ecological catastrophe with millions of tonnes of nuclear waste polluting its land. Contaminated soil is left open to the elements and nuclear waste is probably dispersed over hundreds of kilometers, according to Saulius Smalys, Dushanbe based environment advisor to the pan-European Organization for Security and Cooperation in Europe (OSCE). Stalin's first Soviet nuclear bomb was made with uranium extracted in northern Tajikistan - some 50 million tonnes of radioactive waste still remain. Contamination may spread if earthquakes or landslides were to intensify. Radiation levels in the abandoned mines exceed the norm by scores and cancer levels in the north are reportedly 250% higher than other regions. The OSCE is calling on the IAEA and NATO to provide funds to decontaminate the area - the required amount is estimated at hundreds of millions of dollars.

**Taipei Times, 17 December 2004**

### **Hidden costs of Temelin construction.**

The construction costs for the Temelin NPP are much higher than the 97.6 billion Czech Crowns (US\$ 4.6 billion) given as the official figure by operator CEZ. According to an Austrian government commission the real costs are much higher and may have surpassed 170 billion crowns (US\$ 8.0 billion). The CEZ amount is low because important costs, already identified by the commission in 1998, were deliberately excluded. CEZ also neglected to calculate the effect of interest. Further hidden costs include site preparation work, the construction of interim waste storage and safety upgrade projects.

**www.oberoesterreich.com, 3 December 2004**

### **Putin gives new life to Chernobyl-type reactors.**

Russian President Vladimir Putin has said that new

licenses will be given to 10 ageing first generation Soviet-designed nuclear reactors. The decision to delay shut down and extend the lives of plants such as Leningrad, Kola and Novovoronezh was described as extremely dangerous by Russian NGO Ecodefense. Bringing safety levels up to modern standards is not possible on these plants that were designed and erected long before the Chernobyl disaster.

**Ecodefense press release, 16 December 2004**

### **India & Pakistan fail to agree nuclear CBMs.**

The Indian Coalition for Nuclear Disarmament and Peace (CNDP) expressed great disappointment at the failure of recent official talks between India and Pakistan to come up with meaningful nuclear confidence-building measures (CBMs). Both governments continue

buying and producing more conventional armaments thereby raising bilateral tensions and mistrust. The CNDP calls on New Delhi and Islamabad to rapidly move towards 1) separating warheads from all delivery systems and making such procedures transparent and verifiable. 2) Establishing on both sides of the border a zone of non-deployment of nuclear capable delivery systems. 3) A permanent bilateral test ban pact. 4) Establishing joint teams of Indian and Pakistani scientific personnel to periodically visit nuclear-related facilities in both countries.

**South Asians Against Nukes (SAAN) press release, 17 December 2004**

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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](http://www.antenna.nl/wise/esp)). A Russian version is published by WISE Russia, a Ukrainian version is published by WISE Ukraine and a Japanese edition is published by WISE Japan (both available at [www.nirs.org](http://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](http://www.antenna.nl/wise) and at [www.nirs.org](http://www.nirs.org).

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### Petition for a Sustainable Energy Future

Congress is returning in January, and that means we can expect the return of a new energy bill proposal that would give billions of your dollars to the nuclear power industry. We beat them back last Congress—with your help. We need your help again. As a first step, please sign the Petition for a Sustainable Energy Future, online at [www.nirs.org](http://www.nirs.org) or ask us for paper copies—we'll send you as many as you can get signatures for! You can download the petition from the NIRS' website as well.

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