

NUCLEAR MONITOR

A PUBLICATION OF WORLD INFORMATION SERVICE ON ENERGY (WISE)
AND THE NUCLEAR INFORMATION & RESOURCE SERVICE (NIRS)

wise
World Information Service on Energy
founded in 1978



DECEMBER 4, 2008 | No. 680

E.U.: DEADLOCK OVER COMMON NUCLEAR SAFETY RULES REMAINS

The European Commission is to shelve, yet again, plans for EU-wide nuclear safety rules. Commissioners had intended to propose, as part of a draft law published 27 November, that the current safety standards, which are voluntary, should become compulsory. The Commission was going to propose such rules for adoption by the member states, but after a revolt by national regulators, it has dropped the idea. It is yet another setback for the Commission in the now six years of deadlock over common nuclear safety rules for the EU.

(680.5907) WISE Amsterdam - The Commission first launched a call for EU-wide nuclear safety rules in 2002, as part of its 'nuclear package', arguing that the case for such rules was compelling: the imminent accession to the EU of ex-communist countries, many of which had Soviet-built nuclear reactors, was presenting the Union with a safety challenge. But member states rejected the proposal in 2004 and ignored a revised version presented a few months later. In the four years since, the case for harmonising and strengthening the rules on nuclear safety, as well as for stepping up control of their implementation, has only become stronger.

But mid-November, the European Nuclear Regulators' Group, created by the Commission in 2007 as the high-level group on safety and waste management to develop common approaches on nuclear safety, expressed concerns about the Commission's plans to harmonise standards. Andrej Striar, who chairs the group, said that common standards were a problem for big member states, since it would be difficult to find common rules that would satisfy them all. "Every big country has an established system. None of them is bad or better [than the others]. They are simply different," Striar said, in comments made to *European Voice*

November 20.

In the EU, 15 out of 27 countries get energy from nuclear power, which accounts for around a third of total energy produced in the EU. The majority of nuclear power plants will reach the end of their initially planned lifetime in the next decade or two. Some of them will be decommissioned. Others will be kept in use and their life extended through upgrades. With member states under pressure to increase the use of low-carbon energy, as part of their efforts to combat climate change, the construction of new nuclear power plants is likely. So, whether by upgrading old plants or by building new ones, a pick-up in nuclear power capacity is to be expected, which has to be policed by the strictest safety and security rules and proper protection for the environment.

While it is up to each member state to decide whether it wants nuclear plants on its territory, the safety and security of such installations are of common interest in the EU. Member states that do not have nuclear plants have a vital interest in the safe operation of such installations by their neighbours.

According to the Commission, EU-wide rules would ensure the transparency of the operation, the sharing of information

MONITORED THIS ISSUE:

E.U.: DEADLOCK OVER COMMON NUCLEAR SAFETY RULES REMAINS	1
WILL THE BUSH GLOBAL NUKES PROGRAM CONTINUE?	2
NUCLEAR POWER IN FRANCE: BEYOND THE MYTH	3
THE IMPORTANCE OF A FISSILE MATERIAL TREATY	4
30 YEARS NO TO ZWENTENDORF	7
IN BRIEF	11

and measures to be taken in the case of any safety incident, and ensure a consistently high level of nuclear safety throughout the Union. Common rules should apply to the issuing of licences, design certification and the siting and construction of nuclear installations. Disparities between national rules would, on the other hand, harm safety, reduce trust and constitute an obstacle to investment in nuclear installations.

Nuclear power is a sensitive subject in many countries. The decision whether to accept nuclear installations is a

matter of national sovereignty and the EU should keep out of that debate.

Indeed, the Commission's case for harmonizing nuclear safety rules is not helped by a perception that José Manuel Barroso's administration is pro-nuclear. The Commission's energy proposals, most recently the Second Strategic Energy Review, have given positive signals about the use of nuclear energy and its role in combating climate change. If it wants its next attempt to draft nuclear safety rules to succeed, the Commission

should take a more neutral stance on nuclear power. Hannes Swoboda, an Austrian Socialist MEP, said that the EU should be "passive and neutral on use of nuclear energy, but active in promoting safety standards". He criticized Barroso and Piebalgs for failing to play a neutral role in the debate by underlining "the positives without seeing the risks of nuclear power".

Sources: European Voice; 20, 26 & 27 November 2008

Contact: WISE Amsterdam

WILL THE BUSH GLOBAL NUKES PROGRAM CONTINUE?

The Global Nuclear Energy Partnership (GNEP) was announced February 2006 by U.S. President Bush. It is an attempt to monopolize the fuel cycle through the supply of reactors and fuel if countries decide not to develop a domestic fuel cycle. Reprocessing used fuel is an important part of the GNEP and is heavily criticized since the USA had a policy in place since 1977 which ruled out reprocessing, on non-proliferation grounds. As of October 1, 2008, 25 nations have signed the GNEP Statement of Principles to "share a commitment to the safe, secure worldwide expansion of nuclear power and to the development and deployment of technologies that encourage clean development and prosperity, improve the environment and reduce the risk of nuclear proliferation".

(680.5908) SRIC - On October 17, 2008, the public comment period began on President Bush's program to expand US and international nuclear energy production - the 960-page draft GNEP Programmatic Environmental Impact Statement (PEIS). Although the draft PEIS was rushed out before the Bush administration leaves office, the legally required final PEIS and any decisions about the nuclear-power-almost-everywhere program will be deferred to the next administration. Nonetheless, the public comment on the draft PEIS could have an impact on the new administration and Congress.

The draft PEIS confirms that the proposals made about GNEP in 2006 and 2007 are not being accomplished. When President Bush announced GNEP in February 2006, he said that the program would

- *"develop and deploy innovative advanced reactors and new methods to recycle spent nuclear fuel. This will allow us to produce more energy, while dramatically reducing the amounts of nuclear waste and eliminating the nuclear byproducts that unstable regimes and terrorists could use to make weapons..."*

- *"help developing countries meet their growing energy needs by providing them with small-scale reactors that will be secure and cost-effective. We will also ensure that these developing nations have a reliable nuclear fuel supply. In exchange, these countries would agree to use nuclear power only for civilian purposes and forego uranium enrichment and reprocessing activities that can be used to develop nuclear weapons."*

In March 2006, the Department of Energy (DOE) stated that, among other things, the EIS would determine what site in the US would host the new reprocessing plant and "Advanced Burner Reactor." During the scoping meetings in February and March 2007, DOE stated that by June 2008 it would decide which site(s) would have the reprocessing and reactor facilities, where research and development would be done, and what reprocessing and reactor technologies would be used. But now, none of those matters can be decided in the PEIS. Only the technologies are discussed. No specific sites for any new GNEP facilities are discussed and none can be decided by the PEIS.

Draft GNEP PEIS

Instead, the draft PEIS discusses six general alternatives for the US, but has "no specific proposals for the international component" of GNEP. The six programmatic alternatives are the legally required "No Action" (open fuel cycle), Fast Reactor (closed fuel cycle), Thermal Fast Reactor (closed fuel cycle), Thermal Reactor (closed fuel cycle), Once-Through Fuel Cycle using Thorium (open fuel cycle) and Once-Through Fuel Cycle using Heavy Water or High Temperature Gas-Cooled reactors (open fuel cycle).

Open and closed fuel cycle refer to whether nuclear fuel is used once in a reactor and then the spent (or irradiated) fuel is stored and disposed in a geological repository - open cycle - or whether the spent fuel is reprocessed (DOE likes to call it "recycled") so that plutonium and uranium can be used for other reactors - closed cycle. While DOE specifies no preferred alternative, its objective is to support reprocessing and the closed cycle because it "offer[s] a greater opportunity, relative to the open fuel cycle alternatives, to reduce the capacity requirements for a future geological repository, and to reduce the

hazards associated with the disposal of spent fuel or high-level waste."

There is much evidence to the contrary. Previous public comments and reports by the National Academy of Science, Government Accountability Office, and other independent organizations state that reprocessing is an environmental disaster (as it always has been in the US), would cost hundreds of billions of dollars more than the open fuel cycle, and promotes proliferation by making bomb-grade uranium and plutonium very accessible, compared with those materials being in spent fuel.

Regarding the waste capacity issue, DOE admits that "the closed fuel cycle alternatives require more disposal capacity for other radioactive wastes

than is required under the open fuel cycle alternatives. Furthermore, transportation and associated health impacts from the closed fuel cycle alternatives would be generally higher during the operational period than those from the open fuel cycle alternatives (except for the Once-Through Fuel Cycle using High Temperature Gas-Cooled Reactors)".

Public comments on the draft PEIS will point out that it does not adequately assess the environmental and health impacts of the closed fuel cycle - which still requires uranium mining and processing, uranium enrichment, fuel fabrication, as well as the additional facilities for reprocessing, reactors, and waste disposal. The draft PEIS does not even include estimates of the costs

for the various alternatives, so that fundamental problem with GNEP is not even discussed.

In 2009 the next administration and Congress could decide to halt GNEP even before the final PEIS and Record of Decision could be issued. Such action would be consistent with the public comment that is expected from across the nation.

Source: Voices From The Earth, Fall 2008.

Contact: Southwest Research and Information Center, P.O. Box 4524, Albuquerque NM 87196 4524, USA. Tel: +00 1 505 262 1862 Web: www.sric.org

NUCLEAR POWER IN FRANCE: BEYOND THE MYTH

A study - commissioned by the Greens-EFA Group in the European Parliament and published on December 2 - has revealed some truths behind the glossy image marketed by the French nuclear industry. Claims about nuclear energy's credentials for climate protection and energy independence in particular are exposed as myths.

(680.5909) Greens-EFA - The current Sarkozy-Fillon Government, acting presidency of the European Union's Council of Ministers, has chosen to massively promote nuclear power including to newcomer countries like Algeria, Jordan, Libya, Morocco, Tunisia, United Arab Emirates. The French president travels the world as salesman for the glittering nuclear industry, from the Middle East to China, from Brazil to India. On 29 September 2008, even before the U.S. Congress has given the green light for the U.S.-India nuclear deal, France signed a similar cooperation agreement with India.

The state utility Electricité de France (EDF) has amplified its own international strategy with the recent takeover of British Energy, investment in the U.S. utility Constellation and the creation of the Guangdong Taishan Nuclear Power Joint Venture Company in China with the purpose of building and operating two European Pressurized Water Reactors, in which EDF will hold 30 percent for 50 years. But does it really work that well and is it really that clean and cheap in France? With nuclear power apparently gaining increasing acceptance in the European

Union and elsewhere, it is worthwhile to have a closer look at the "French model".

Nuclear power only provides about 16% of final energy in France, while fossil fuels continue to cover over 70% of demand. In 2007, after three decades of major nuclear power development, oil provides almost half of the final energy consumed in France. The French government's proclaimed goal from 1974 to render France independent from oil through the development of nuclear energy could hardly be achieved given the fact that power generation only counted for less than 12% of the oil consumption in the country in 1973

Key sector for oil was and remains transports.

The substitution of oil in the power sector brought the power sector share of oil consumption down to 1.5% by 1985, when the overall oil consumption hit a long time low. The 1985 counter oil shock led to the immediate resurgence of oil consumption. By the end of the 1990s the oil consumption corresponded again to the level of the early 1980s - in spite of the nuclear

program. And in 2007 per capita oil consumption in France of 1.5 tons was *higher* than the EU average and consumption in non-nuclear Italy and nuclear phase-out country Germany that are about 1.4 tons.

CO₂ emissions stabilized but higher than in the middle of the 1980s.

While per capita emissions remain lower than in neighbouring countries, there is no identifiable structural emission reduction. France's *total* emissions of the six main greenhouse gases were 2 % below 1990 levels in 2005. This had little to do with the power sector. In fact, the emissions of public electricity and heat generation were 5% *above* the 1990 levels and CO₂ emissions from road transport also increased considerably over the same time period (+17%). But large reductions were achieved for example in N₂O emissions from the adipic acid production.

Electric Heat and Power Trade

In the 1980s significant overcapacities were built up in the power sector as well as in refineries and nuclear fuel industries and most of the energy intelligence initiatives based on

efficiency and conservation were abandoned after 1986. In 2007 nuclear plants that counted for 54% of the installed capacity generated 77% of the electricity in France, fossil fuel plants (coal, gas, oil) produced 10%, hydro plants 11.6% and other renewables 1.4%.

Rather than downsizing its nuclear extension program, EDF developed a very aggressive two front policy: long term base load power export contracts and dumping of electricity into competitive markets like space heating and hot water generation. France became the largest net power exporter in Europe. Over the last ten years, there is a tendency towards a stabilization of exports (at 80-90 TWh) but an increase in imports (around 25-30 TWh), thus net exports fluctuating around 60 TWh.

France increasingly lacks peak load power whose consumption

skyrocketed in the 1980s and 1990s in particular as a consequence of massive introduction of electric space heating. Not only that the daily load maximum more than doubled to almost 89 GW in early 2008, also the difference between the lowest load day in summer and the highest load day in winter more than doubled to reach 57 GW by 2006. Between 2005 and 2007 France imported an average of close to 30 TWh per year, of which 17.5 TWh came from Germany. Short-term peak load deliveries can be many times more expensive than base load exports in the framework of multi-annual agreements.

A leaked report by French government agency ADEME and the EDF subsidiary RTE has calculated the CO2 content of the imported kWh for space heating with 500 g to 600 g, up to three times the emissions of a natural gas based central heating

system. In addition, EDF decided to restart 2,600 MW of mothballed oil fired power plants, the oldest of which had started up in 1968. Already over the past several years France generated twice as much electricity from oil than the UK.

The use of electricity to create heat is "an error, a French folly and even a thermo-dynamic aberration", according to French Secretary of State for Ecology Natalie Kosiusko-Morize. Today, per capita electricity consumption in France is almost a quarter higher than in Italy (that phased out nuclear energy after the Chernobyl accident in 1986) and 15% higher than the EU27 average.

A copy of the report '*Nuclear Power in France, Beyond the Myth*' by Mycle Schneider, can be found on NIRS website, www.nirs.org

THE IMPORTANCE OF A FISSILE MATERIAL TREATY

On October 11, the IPFM released the 'Global Fissile Material Report 2008, Scope and Verification of a Fissile Material (Cutoff) Treaty'. The International Panel on Fissile Materials (IPFM) was founded in January 2006 and is an independent group of arms-control and nonproliferation experts from both nuclear weapon and non-nuclear weapon states. A treaty banning the production of fissile materials for nuclear weapons is an essential requirement for constraining nuclear arms races and, in the longer term, achieving nuclear disarmament. Fissile materials, in practice plutonium and highly enriched uranium, are the essential materials in nuclear weapons. Their production is the most difficult step in making nuclear weapons. But huge stocks are available due to the 'civilian' nuclear programs.

(680.5909) IPFM - Negotiation of a Fissile Material Cutoff Treaty was endorsed without a dissenting vote in 1993 by the United Nations General Assembly. In 1995, the Geneva based Conference on Disarmament (CD) agreed to begin negotiations on "a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile materials for nuclear weapons or other nuclear explosive devices." But talks did not begin. At the Review Conference of the Parties to the Non-Proliferation Treaty (NPT) in 2000, it was agreed that negotiations should commence immediately, "with a view to their conclusion within five years." The CD has, for various reasons, again not formally launched negotiations on a treaty.

Proponents of a Treaty that would only ban production of fissile material, name it a Fissile Material Cut-Off Treaty (FMCT). There are, however, huge stocks of fissile material in weapons as well as outside the weapon complexes. The latter stocks are currently designated for civilian or naval reactor use or are being recovered from Cold War weapons that have been declared excess for military use. Those who would also like the Treaty to prevent possible future use of these materials for weapons prefer to call the Treaty a Fissile Material Treaty. To reflect this disagreement, this report uses the term Fissile Material (Cutoff) Treaty, or FM(C)T. It proposes, however, treaty articles addressing pre-existing civilian stocks, stocks declared excess to military purposes, and stocks of highly enriched uranium declared for use as

fuel for naval-propulsion and other military reactors and verification of their non-weapon use.

Why an FM(C)T is Important

Since the NPT nuclear-weapon states have all stopped producing fissile material for weapons, the core concern for many states is how a treaty will deal with the stockpiles of weapons-usable material accumulated worldwide. The global stockpiles of HEU total between 1400 and 2000 metric tons, while the current global stockpile of separated plutonium is about 500 tons. Most of this material is in the possession of nuclear weapon states, predominantly the United States and Russia. There is therefore disagreement today over whether a treaty on fissile materials should ban only the future production of such materials for

Separated Plutonium

The global stockpile of separated plutonium is about 500 tons. It is divided almost equally between civilian stocks and military stocks, including material declared excess but not yet disposed. Separated plutonium exists mostly in nuclear weapon states, but Japan and a few non-nuclear weapon states in Europe also have significant stocks.

Russia and the United States possess by far the largest stocks of military plutonium: 120-170 and 92 tons, respectively. Russia has declared 34 tons, and potentially up to 50 tons, of its weapon-grade plutonium excess for weapon purposes. The United States has declared excess 54 tons of separated government-owned plutonium, which

includes 9 additional tons added to that category in September 2007. The Russian and U.S. plutonium disposition projects have suffered many changes of plans and delays since they were launched in the mid-1990s.

Under a Fissile Material (Cutoff) Treaty, the most costly new verification challenge will be to apply safeguards to reprocessing plants in the eight states having nuclear weapons (the five NPT nuclear weapon states, Israel, India, and Pakistan). Although there are only two operating reprocessing plants in the non-weapon states, Japan's Tokai and Rokkasho facilities, these two plants alone account for 20 percent of the total international safeguards inspection effort performed by the International Atomic Energy Agency (IAEA).

weapons or if it should deal as well with fissile material in civilian use and even stocks of fissile material reserved for fuel for naval and other military reactors.

A fissile material cutoff treaty would strengthen the non-proliferation regime, reduce the risk of nuclear terrorism, and help lay a basis for nuclear disarmament by: Meeting international demands made by the United Nations General Assembly and commitments made by the NPT weapon states; Extending to the nine nuclear weapon states the legal ban on production of fissile material for weapons that currently applies only to non-nuclear weapon states; Further reducing the discriminatory aspects of the NPT by extending mandatory safeguards to nuclear facilities and materials in nuclear weapon states; Improving national monitoring and regulation of fissile material; Extending into the nuclear weapon states

institutions and practices necessary for the eventual achievement of a nuclear weapons free world; and Helping to make nuclear weapons reductions irreversible.

Meeting International Demands and Commitments

An FM(C)T addresses the long-standing demands of the international community for a verifiable ban on the production of fissile materials for weapons. This was spelled out first by the U.N. General Assembly in November 1957 in Resolution 1148, which called for a treaty that would include:

"the cessation of the production of fissionable materials for weapons purposes,"
"the complete devotion of future production of fissionable materials to non-weapons purposes under effective international control," and
"the reduction of stocks of nuclear

weapons through a program of transfer, on an equitable and reciprocal basis and under international supervision, of stocks of fissionable materials from weapons uses to non-weapons uses."

As already noted, in December 1993, the UN General Assembly adopted by consensus a

resolution calling for negotiation of a "non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices." On 23 March 1995, the Geneva based Conference on Disarmament (CD) agreed to begin negotiations on a treaty. At about the same time, the final document of the 1995 NPT Review Conference called for "[t]he immediate commencement and early conclusion of negotiations on a non-discriminatory and universally applicable convention banning the production of fissile material for nuclear weapons or other nuclear explosive devices, in accordance with the statement of the Special Coordinator of the Conference on Disarmament and the mandate contained therein." This call for action was reiterated as one of the 13 steps agreed to at the 2000 NPT Review Conference, which commits at least the states party to the NPT, including the five nuclear weapon states, to negotiate an FM(C)T.

The continued delay and possible failure to achieve a treaty would heighten already significant concerns about the prospects of realizing other NPT commitments made by the weapon states.

Universalizing the Legal Ban on Production of Fissile Material for Weapons

All non-weapon states party to the NPT have accepted the obligation not to produce fissile material for weapons. Although the NPT does not require the parties that joined as nuclear weapon states (United States, Russia, United Kingdom, France and China) to do so, four of the five have declared officially

Highly Enriched Uranium Stocks

More than 99 percent of the global HEU stockpile is in the possession of the nuclear weapon states. Only the United Kingdom and the United States have made public the total sizes of their stocks of HEU. Estimates of the remaining national holdings are generally quite uncertain. According to these estimates, despite the elimination of over 400 tons of Russian and U.S. HEU by down-blending to low-enriched uranium, the global inventory still totals 1670 ± 300 tons. The main uncertainty in estimating the global total is due to a lack of information on the Russian stockpile.

The most significant changes compared to the previous year are due to the ongoing blend-down activities in Russia and the United States, which together eliminated about 40 tons of HEU between mid-2007 and mid-2008. As of mid-2008, the United States had down-blended cumulatively about 96 tons of highly enriched uranium. Little if any of this material was weapon-grade. As of June 2008, Russia had eliminated 337 out of 500 tons of weapon-grade HEU as part of its 1993 HEU deal with the United States, which is to be completed in 2013.

that they have ended production of fissile material for weapons, and the fifth, China, has indicated informally that it has suspended such production. An FM(C)T would turn this production moratorium into a legally binding commitment for these states. The other four nuclear weapon states—the Democratic People's Republic of Korea (North Korea), Israel, India, and Pakistan—are not parties to the NPT. North Korea, though, has also recently ended its production of plutonium and is committed to ending its nuclear-weapons program and returning to the NPT as a non-nuclear weapon state. India, Pakistan and perhaps Israel are believed to be still producing fissile materials in their weapon programs and have refused to join the moratorium. Ending fissile material production for weapons is particularly important in South Asia, where Pakistan and India

both appear to be increasing their rates of production of fissile materials for weapons. An FM(C)T would create a requirement for Israel, India and Pakistan to end their production of fissile material for weapons and bring facilities under safeguards, and so join the non-proliferation and disarmament regime, without having to join the NPT as non-weapon states.

Reducing Discrimination Between Nuclear Weapon and Non-weapon States

The NPT requires mandatory IAEA safeguards in non-nuclear weapon states, while requiring none in nuclear weapon states. This inequitable application of safeguards has raised concerns in non-weapon states about additional costs and vulnerability of proprietary commercial information.

The nuclear weapon states have sought to address this issue by making voluntary offers to open some of their facilities and materials for safeguarding. The United States, followed by the United Kingdom, and later France, in the 1970s, and the Soviet Union and China in the 1980s, offered some facilities and materials for IAEA safeguarding. In practice, however, the IAEA has not been given enough resources to apply the safeguards. An FM(C)T would impose for the first time compulsory safeguards in nuclear weapon states that would, at a minimum, cover all production facilities.

Improving National Accounting for Monitoring of Fissile-material Stocks

Since the end of the Cold War, it has been discovered that accounting for fissile materials has often been very loose in weapon states. An FM(C)T would require that, at least in their civilian nuclear sectors, nuclear weapon states meet internationally agreed standards for the control and accounting of fissile materials.

Making Nuclear-weapon Reductions Irreversible

The United States, Russia, United Kingdom and France have all announced reductions in the size of their nuclear arsenals from their cold war peaks. For the United States, the number of warheads peaked at about 30,000 in the mid-1960s, and the Soviet/Russian arsenal reached 40,000 in the 1980s. In the case of the United States and Russia, reductions have amounted to tens of thousands of weapons. The United Kingdom and France have reduced proportionately by hundreds of weapons each. Some of the material from these weapon reductions has been declared as excess to military requirements by the United States, Russia and the United Kingdom. A total of about 700 tons of highly enriched uranium and almost 100 tons of plutonium (not all of which is from weapons) have been declared excess. This combined total is enough for over 30,000 weapons. An FM(C)T that obliged states not to use for weapons fissile material either in civilian use or declared as excess for weapons would capture these materials and ensure that nuclear weapon reductions were irreversible. If future

Country	Facility	Safeguards Status	Capacity [tSWU/yr]	HEU Status
Brazil	Resende	yes	120	none
Germany	Gronau	yes	4500*	none
Iran	Natanz	yes	250	none
Japan	Rokkasho	yes	1050	none
The Netherlands	Almelo	yes	3500	none
France	George Besse II	yes	7500	none
United Kingdom	Capenhurst	yes	4000	cc
United States	Piketon, Ohio	offered	3500	none
	Eunice, NM	offered	3000	none
	Areva Eagle Rock, Idaho	(offered)	3000	none
	GLE, Wilmington, NC		3500–6000	
China	Shaanxi	(yes)	1000*	potential cc
	Lanzhou II	offered	500	potential cc
Russia	Angarsk II	(offered)	5000	none
	4 others	no	~30000	ended 1988
India	Ratthalli	no	4–10	ongoing
Pakistan	Kahuta	no	15–20	ongoing
	Chak Jhumra, Faisalabad	(offered)	150	none

Table 4.2. World enrichment facilities and their safeguards status, expected situation for 2015. The facilities in Brazil, France, Iran, and the United States (Piketon and Eunice) are currently under construction. Additional facilities are in the early planning stages (Areva and GLE in the United States, Angarsk-II in Russia, and Chak Jhumra in Pakistan). Whether these projects will be realized as currently

planned is less certain. In some cases, cross-contamination (cc) might result in the presence of HEU particles in facilities that never produced such material. Asterisks mark capacities after planned expansions are complete. Global Laser Enrichment (GLE) is a subsidiary of General Electric Hitachi (GEH) and Cameco using the Australian Silex process.

arms reductions were accompanied by declarations that the material in these weapons would be placed under international safeguards, the global stock of fissile materials would continue to be irreversibly reduced.

Creating Institutions for a Nuclear-Weapon-Free World

Any plausible enduring global prohibition on the production, possession and use of nuclear weapons would require that the nuclear

weapon states eliminate their weapons and place all fissile material stocks and production facilities under strict international safeguards. The FM(C)T creates many of the norms, mechanisms and practices that would constitute the core of such regime, including the accounting for and safeguarding of stocks of fissile materials and the extension of mandatory international safeguards into the nuclear weapon states.

Contact: International Panel on Fissile Materials, Princeton University, 221 Nassau Street, 2nd Floor, Princeton, NJ 08542, USA

Tel: +1-609-258-4677

Fax: +1-609-258-3661

Email: contact@fissilematerials.org

<http://www.fissilematerials.org>

Source: The Global Fissile Material Report 2008, (with all footnotes and sources) can be downloaded at:

<http://www.ipfmlibrary.org/gfmr08.pdf>

30 YEARS NO TO ZWENTENDORF

Good to remember in times of "nuclear renaissance" - 30 years ago in Austria: The first-ever national referendum and Atomic Energy Prohibition Act worldwide, when the people said "no" to the ready-built nuclear power plant at Zwentendorf in November 1978.

The Austrian people has prevailed over its rulers.

*The committed over the bureaucrats,
the penniless over the money-bags/plutocrats,
common sense over "I know better" experts.*

(Günther Nenning, a well-known writer, trade unionist, Socialist Party member but cross-over intellectual, commenting the referendum in *Profil*, Nov. 11, 1978)

(680.5910) **Heinz Stockinger** - In January 1978, the then chancellor Bruno Kreisky had stated that the nuclear energy issue was "*by no means appropriate for a vote by the people*". Six months later, after he and his governing Socialist Party (SPÖ) had failed to reach an agreement with the opposition(*1), he announced the first-ever referendum in the country's Second Republic's, i.e. post-World War Two history. A referendum on that very issue and, in particular, on the Zwentendorf nuclear power plant, located some 35 kms west of Austria's capital, Vienna (mind the westerly winds!), entirely finished, complete with the fuel rods in the reactor's core and ready for start-up.

On November 5, a wave of joy surged through the hearts of the opponents of nuclear energy: 50,47% of the voters had answered "no" to the question whether the country's first nuclear power plant should be put into operation.

"By an extremely narrow majority..." was the tenor of the pro-nukes' reactions. A very narrow majority? Indeed so. However, an overwhelming majority when you consider the dynamics of how public opinion had

developed: When the referendum was announced at the end of June, the official polls said that around two thirds intended to vote in favour, one third against the Zwentendorf NPP. And this turn-around of public opinion within a mere four months had been reached with ridiculous financial means in the face of the "nuclear behemoth": the government, the business and the workers' unions, and the National Austrian Utility (*Verbund AG*). These had spent more on their pro-nuclear campaign than the state's budget had provided for solar, geothermal and wind energy during 1974-1977!

How can you win in the face of such powerful adversaries?

The opponents' victory was of course due to a number of factors: relative unity; sustained, steady commitment; a capacity to reinforce, and take advantage of, the controversies between the three political parties represented in Parliament, and their often opportunistic positions; fighting with arguments and humour; non-violence. The state's forces practised non-violence, too. Physical non-violence, that is. As for moral non-violence, things were a bit different: diffamation of, and pressure on,

antinuclear activists was omnipresent. A week before the vote, for example, chancellor Kreisky said about the Zwentendorf opponents: "*Among these people, you have nothing but fascists and leftist extremists that have succeeded in seducing a number of respectable persons.*" The chancellor's words were spread throughout the country by the National Television and Radio Network (ORF) in the evening, and next morning by the newspapers. For everything a chancellor says will be broadcast - the tens of thousands of antinuclear activists, who were just ordinary citizens and desperately wanted to publicly contradict Kreisky's enormity, were not anywhere near to getting such a broad echo...

From their own pockets

However, the various no-nukes groups had one major moral strength, besides imagination and humour: unity and mutual tolerance. Between leftist and rightist and centre tendencies, there were of course divergences. Still, the activists within the two main umbrella organisations, the Initiative of Austrian Opponents to NPPs (IÖAG)(*2) and the Stop Zwentendorf Association(*2), always stayed open-minded enough to use information material worked out by

the other, for instance.

At innumerable stands out in the streets and squares, thousands of socialist, Christian, liberal, leninist, maoist and most of all independent activists sold the IÖAG's gazette *INITIATIV* and various brochures, distributed flyers, stickers, etc. Students took them back home to their villages. A young mother in Vorarlberg province wrote the chancellor a letter per day, in which she mingled everyday impressions and scientific arguments. A teacher paid a month's salary to buy a copy of the film "Living With Nuclear Energy" produced by a Swiss citizens' group. In the run-up to the 5 November decision, he did his usual job during the day, while in the evening he travelled up and down the central regions in order to show the film and discuss with people in villages and towns, coming back home between one and three a.m. and doing the same again the night after.

All of these volunteers often felt knocked down and depressed by the pro-nuclear PR machine permanently at work in the press, on the radio and on TV. Still, it was the personal commitment of so many unknowns similar to themselves that proved stronger and convinced ever more people. And, of course, a number of well-known personalities: medicine Nobel laureate and zoologist Konrad Lorenz; university professors; "Physicians Opposed to Zwentendorf", "Artists...", "Teachers...", "Mothers...", "Farmers Opposed to Zwentendorf",...

Secret reports coming out

These developments went hand in hand with an increasing awareness among journalists except the papers then belonging to the party in power, the SPÖ. One typical case is that of the information weekly *Profil*. Its editor was in favour of the Zwentendorf NPP but tolerated staff members publishing critical articles. Summing up the campaign in an editorial on the eve of November 5, he couldn't help concluding: "*It seems that the deeper a journalist digs into the question of nuclear power, the more reasons he will discover to become sceptical about it.*"

How come? Well, "by coincidence" or thanks to "leaks", some journalists discovered strange things about pro-nuclear PR. For example, a mere ten days before the referendum, *Profil* got access to a document that had been kept secret for 18(!) years. It was a study done by the National Geological Institute in 1960 in order to determine possible nuclear construction sites in Austria. The official experts had established four categories of sites: "best suited", "well-suited", "suited with reservations", "not suited". And they had classified Zwentendorf in this last and worst category, mostly due to risks from earthquakes. Now, the pro-nuclear voices from all sides had been proclaiming that "*the experts consider(ed) the Zwentendorf plant to be one of the safest, or indeed the safest, in the world*", incidentally playing on the nationalist fiddle. At the same time, they had denigrated Dr Alexander Tollmann, professor of geology at Vienna University, who had spoken out against operation of the plant precisely because, among other reasons, he considered the site to be exposed to high seismic risk.

Such hidden information exists in any country. It was through the courage and sense of responsibility of a few journalists and civil servants that the Austrian population came to know it and thus was able to judge on which side there were the lies and the camouflage, and on which, rather, there were honesty, responsibility and disinterested commitment.

Legislative consequences, and efforts to undermine the referendum

One month after the Zwentendorf vote, Parliament unanimously voted the Atomic Energy Prohibition Act (Dec. 15, 1978) proposed by chancellor Kreisky. None of the three parties there could afford to oppose this law at that moment. A great number of influential people in the parties and in interest groups, however, were hardly hiding their firm intention to topple the "no" vote, and immediately started working toward a second referendum in which they were determined not to be taken by surprise again. The most powerful of these circles were the Industrialists' Union, weighing heavily within the conservative Christian-Democrats

(ÖVP), and the unitary Workers and Employees Union (ÖGB), highly influential within the SPÖ.

While Vienna's SPÖ mayor Leopold Gratz had recognized after the nuclear industry's first big shock experience, the accident at Three Mile Island/Harrisburg in March 1979, that this "*confirmed the maturity Austrians had shown on November 5, 1978*", as early as 1980 the pronuclear agitators launched a "popular petition"(*3) for the repeal of the Atomic Energy Prohibition Act of December 1978.

Though dwindled down to a few groups and persons, the antinuclear movement and some true nuke-skeptics within the political parties managed to ward off all the attempts to topple that Act and have a second referendum, until, finally, the Chernobyl cloud, much of which rained out over Austria, stopped all those efforts once for all.

The most decisive issue - and the most telling about nuclear energy and its promoters - had already been at the heart of the pro & con campaigns prior to Nov. 5, 1978: the advocates of a second vote knew they could hardly win sufficient political and popular support without presenting some "solution" for the Zwentendorf NPP's would-be radioactive waste. Local populations in various Austrian districts had put up such fierce resistance against waste deposit plans before the first vote that the Zwentendorf promoters now, in 1980 and the following years, just didn't dare propose another domestic storage site. Yet their search abroad resulted in fiascos that became the laugh of the nation. Beneath the hilarity, though, loomed a malaise about the irresponsibility and recklessness of the Austrian nuclear lobby. In voluntary blindness, ministers, *Verbund Utility* CEOs and others travelled one country after the other in official or semi-official missions, preparing and sometimes concluding contracts for future Austrian high-level waste to be stored. Dictatorships were the favourite target countries: while pronuclear propagandists had diffamated Zwentendorf opponents to be "*Moscow's agents*", they now did not see a problem in concluding a contract

with the Soviet regime in order to have Austrian nuclear waste stored somewhere in the Ural Mountains or in Siberia. Another time, newspaper headlines announced that *"China will store Zwentendorf waste in Gobi desert"*. Two other cherished destinations were the Shah's Iran - with ayatollah Khomeiny's islamist regime following a few months later -, and Egypt. The land of the pyramids however recalled - not very luckily for the nuclear waste dealers - a comparison one of Austria's most popular scientists had used with great success during the 1977-78 campaign already: *"Had the Pharaohs built nuclear power plants for 30 years' electricity production, today's humanity would still have to take care of their waste."* (Bernd Lötsch, now head of the National Museum of Natural History, Vienna)

Windows opened by the 1978 Zwentendorf victory

Zwentendorf is an experience that teaches just how many energies can be liberated by a single positive event: **"Renewable energy and efficiency development:** Right after the 1978 referendum, "do-it-yourself solar construction groups" were formed, first in Styria province, from where

they spread all over the country. There were "teething troubles", of course. But it was this popular movement from which developed a solar thermal technology business which has made Austria one of the international market leaders in the field, letting far behind a country like France, where nuclear domination has been stifling all the alternatives as deep as into the very minds of many people. And the enterprising spirit of that popular movement toward practical alternative technology largely boosted, too, the whole renewable energy and efficiency economy which has created so many future-resistant jobs and a number of model communities well on their way toward self-sufficiency, like Güssing, in Burgenland province. - N.B. On the whole, official Austrian energy policy, on the regional and even more so on the federal level, is hardly any better than in comparable countries. This topic would require a separate article, though.

" Nuclear lobby disbanded: The longer the NPP on the banks of the Danube stayed closed, the more its personnel started to look for jobs elsewhere. When Chernobyl gave the re-opening plans the final blow, the last organised associations promoting

Zwentendorf and nuclear power in Austria vanished. The importance and prestige of reactor safety institutes and similar ones, established at a few Austrian universities, declined. Their personnel decreased. So did students' numbers. What had been, as in other countries, the pride of modern Austrian science from the late 1950s on, was soon to lose the word "nuclear" from its name, Seibersdorf Austrian Nuclear Research Centre. However, remnants of Austria's one-time nuclear lobby still exist here and there, at times praising the Czech or Slovakian Temelin or Mohovce NPPs' *"undoubted safety"* and trying of course to influence Austrian politicians behind the scenes. With the present hype about "nuclear renaissance", these scattered figures are meeting with some renewed interest in the media. Mind, too, that Vienna is the seat of the International Atomic Energy Agency (IAEA), and no Austrian government or parliament majority has been willing to bow out the world's foremost nuclear lobbying institution. (Such "prestige" to host a UN agency, isn't it? And so much money...).

" Chernobyl - relatively open information policy and quite strict measures (1986ff.): The "Chernobyl

Austria's 1978 Referendum on Nuclear Power - Why Was It Such a Turning Point?

1. The nuclear power plant at Zwentendorf, located on the Danube River some 35 kms west of the country's capital, Vienna, was **ready for start-up:** at the time the referendum was decided by Chancellor Bruno Kreisky (Soc-Dem) in June 1978, it was completed and had all the authorisations, permits, etc., required to go into operation. *"We can't waste all that money!"* there-fore was the strongest pro-argument of all.
2. (*Less important to the international anti-nuke movement*) The referendum, which took place Nov. 5, 1978, was **the first national referendum in the so-called Second Republic.** This was (and still is) Austria's *first democratic* republic, and the movement against nuclear power being introduced in Austria brought about a **gigantic "democratic awakening"** of this nation. Never before or after have so many people from so many walks of life on so many occasions raised their voice, contributed work and effort, donated money as they did during the campaign against Zwentendorf NPP.
3. It was the **first national and binding referendum on nuclear energy worldwide.**
4. The referendum gave rise to the **first national nuclear (fission) energy prohibition act worldwide.** (Austrian Federal Law Forbidding Electricity Production from Nuclear Fission, voted in the Austrian Parliament Dec. 15, 1978.)
5. It meant the **first industrialized nation stepping out of nuclear power.** (Or, more precisely, not stepping in when it was on the verge of doing so.)
6. Although, of course, there were different ideological tendencies among the **anti-nuclear groups, they always ranged these differences behind the common cause and did not let themselves divide into "left" and "right"**, which could have been played one against the other. (Most of the activists felt increasingly independent from the two big traditional political camps, which in the beginning both advocated nuclear power identically. No wonder the Austrian Green Party was a direct offspring from the no-nukes movement, like in other countries, too.)

blitz" struck when the Zwentendorf promoters, some of them ministers in the SPÖ-led government, were as active as ever since November 1978 to bring about a second referendum. It is not surprising, therefore, that at first, federal information policy and safety measures were stained with secrecy, disinformation, contradictory statements, and delays. As a surge went through the population that swayed to the "no" position almost all of those hesitantly believing in nuclear power, it became quickly clear to decision-makers that the nuclear game was over, and information and public discussion channels opened wider. N.B., though: Neither did Austria require that the Soviet Union (or Russia, later on) compensate for the calculable cost of Chernobyl consequences in Austria, nor has the Ministry of Health ever commissioned a comprehensive epidemiological study on the health effects - although it is no secret that thyroid troubles, including cancer, multiplied a few years after the Chernobyl fallout had come down.

" **The Hainburg battle (1984-85):** The frustrated Zwentendorf advocates were happy to pursue their conventional supply-oriented energy policy by, e.g., pushing for new big hydro-electric plants in rare Alpine valleys and on the small still free-flowing portion of the Danube, and blaming *"those that prevented a ready-built nuclear power plant from being used"*. Thus, throughout December 1984, thousands came to occupy the dense forests near Hainburg town in one of the largest floodplains remaining in Central Europe until the government gave in, thus clearing the path for the creation of the Danube Auen National Park (IUCN category II). The fighting knowhow and morale that helped win that struggle would hardly have been possible without the Zwentendorf victory.

" **Transboundary antinuclear fights - Wackersdorf reprocessing plant (G) stopped (1985-89):** Having got rid of Austria's domestic nuclear programme, and with awareness heightened everywhere by Chernobyl, especially in the more democratic European countries, the Austrian antinuclear organisations had energy

to fight nuclear projects across the borders. Joining hands with the German resisters, they helped prevent what would have been Germany's first commercial reprocessing plant for highly radioactive waste, and the country's entrance into the plutonium economy, at Wackersdorf, Bavaria. 440 000 written objections by Austrian citizens, local and regional governments (just as many as from all of Germany itself), and an inflammatory one-hour speech against the reprocessing project by the Austrian environment minister Marilies Flemming in the official public hearing on foreign territory: all that would have been unthinkable without the Chernobyl shock wave, and without the emancipating Zwentendorf experience. - Thereafter, Austrian no-nukes groups did mark some points, too, against the Temelin, Bohunice, Mohovce and Krsko nuclear power plants in former Soviet satellite states. The alliance of the Western nucleocrats and of the Eastern nuclear complex come down nearly unchanged from stalinist Soviet times, under the gloating eye of the EU Commission and many national politicians has been one of the factors making these fights even more difficult than the previous ones. Cowardly and partly awkward action by Austrian governments, and probably secret hopes for the nuclear electricity that Austria is now indeed importing, are further factors in this.

" **Putting a brake on the EU's pro-nuclear stance?** The Austrian antinuclear tradition that began with the Zwentendorf referendum has had some positive "fallout" on nuclear policy within the EU councils and the European Parliament. Today, with the attempts for EURATOM reform blocked, it seems that Austria is increasingly "under nuclear influence" rather than influencing the European Atomic Community. And even a question the Salzburg-based regional non-nukes group PLAGÉ posed as early as 1994, before Austria's accession to the EU, may come up again: If the worst came to the worst, would the Austrian Atomic Energy Prohibition Act of 1978, even in the reinforced version of the 1999 Constitutional Law for a Nuclear-Free Austria, withstand a legal complaint

before the European Court of Justice - when, as we know, EU law in case of conflict overrules even the national constitutions? A growing coalition of Austrian NGOs therefore are calling for the country's withdrawal from EURATOM, which is legally feasible according to three expert reports. (See Nuclear Monitor 658.5818: "Euratom: Countries free to step out") *30 years after the good-bye to Zwentendorf NPP, we want Austria to say good-bye to EURATOM!*

Epilogue, or What do you do with a ready-built NPP never gone into operation?

It is not surprising that, as long as its promoters hoped to sway public opinion, the Zwentendorf nuclear power plant remained untouched, despite repeated demands by the antinuclear organisations to close the plant definitely and dismantle it. The owner, *Verbundgesellschaft-GKT*, seized the opportunity to build a coal-fired replacement plant besides the "sleeping" NPP, uninterested in strategies for reduction of electricity consumption, just as was the federal government, by and large. After a few years, the fuel elements were finally taken out and sold. The fuel could have been procured again quite easily, of course. When hopes had gone after Chernobyl, the owner company resigned itself to selling more and more of the pieces. The most regular clients have been the German sister NPPs at Brunsbüttel, Krümmel, Landshut/Isar-1, etc. They buy pieces for repair, and German staff are trained at the Zwentendorf reactor - a unique opportunity to work on a real-size nuclear reactor with only one thing missing: radioactivity and danger of accidents. Parts of the side buildings have been used as a police training centre - a role in which we antinuclear people definitely like to see the very force that once was the most visible expression of the state's power used against the critics of the official policy. Around the referendum's 30th anniversary, the present owner of the plant site, *Lower Austria Public Utility (EVN)*, announced that it is planning to install a photovoltaic power plant on parts of the site in 2009. While its output will not come anywhere near the NPP's potential because except in the

earth's sunbelt solar energy transformation is by definition scattered in many spots, this is a fine symbol of the energy path Austria, as a whole, has chosen to follow.

PS: There were to be as many as seven NPPs alongside the small country's rivers (front page of the Kurier, one of Austria's two main daily papers, May 17, 1975). And three of them by 1990!

Notes:

(*1) ÖVP: *Österreichische Volkspartei*, Christian-Democrats; always rivalling with the SPÖ for the top. FPÖ:

Freiheitliche Partei Österreichs, "Freedom" Party; substantially, then, liberal nationalists; today, just nationalists, rather.
(*2) *Initiative Österreichischer AKW-Gegner*, from centre to left-wing; *ARGE Nein zu Zwentendorf*, from centre to right-wing.
(*3) *Volksbegehren* in Austrian political terminology. Not binding for the parliamentarians, differently from the *Volksabstimmung* (referendum).

Source and contact: Heinz Stockinger, PLAGE, A-5020 Salzburg, Arenbergstr.10; Tel. +43/662-643567,

Fax -6437344, e-mail: plage@salzburg.co.at;
Or: Heinz Högelsberger, AAI, A-1010 Vienna, Volksgartenstr.1; Tel. +43/1/5229-102, F: -103; e-mail: AAI@blackbox.at

Heinz Stockinger is a lecturer in French language and culture at Salzburg University and chair of the Independent Salzburg Platform Against Nuclear Dangers (PLAGE). In 1977-78, he was on the Steering Committee of the *Initiative Österreichischer AKW-Gegner*, one of the two national antinuclear umbrella organisations.

IN BRIEF

Demise of Yucca project predicted. Now that Barack Obama has been elected as the new president of the United States, many people expect that he will follow his election campaign promise and will stop the Yucca Mountain Project. One of the opponents of the waste repository is Senate Majority Leader Harry Reid. He said he has had several discussions with Obama about the Yucca Mountain Project since the election, with Reid saying the nuclear waste burial plan will "bleed real hard" before being halted. He declined to give details, but hinted that the plan to bury 77,000 tons of highly radioactive material in Nevada could die a slow and painful death. During the presidential campaign that included a key early caucus in Nevada, Obama declared the selection of Yucca Mountain for long-term waste storage "has failed." He said nuclear waste should continue to be kept at reactor sites while policy-makers come up with a Plan B.

Las Vegas, Review Journal, 21 November 2008

Sellafield: Indemnity trouble and no FOI

The Government's decision to indemnify the new operators of Sellafield (U.K.) from the cost of any accidents at the site - even if it is their fault - has been strongly criticised in the House of Commons. The consortium of American company URS Washington, Areva from France and UK company Amec refused to sign the new £6.5 billion (US\$ 9.7 bn, 7.6 bn euro) contract to manage the site unless the Government removed a clause under which they would have to pay the first £140 million for dealing with an accident or leak. The then energy minister Malcolm Wicks used emergency procedures to rush the agreement through Parliament, giving MPs no chance of discussing it and putting details in the Parliamentary library two months after the deadline for MPs to raise objections. Now Labour MP Paul Flynn has claimed Mr Wicks broke Treasury guidelines by failing to consult MPs and asked the Speaker to intervene and agree to a full debate on the issue. Meanwhile, the BNFL management company for Sellafield, Sellafield Limited, is handed over to Nuclear Management Partners for the price of £1 for the token 'golden share'. The handover will mean Sellafield Limited moves into private ownership and the Government has confirmed that this means it will be exempt from the Freedom of Information Act.

N-base Briefing 588, 29 October 2008 and 591, 20 November 2008

Nuclear 'veto'

The UK Government's Scottish Secretary, Jim Murphy, has denied it was trying to get rid of the Scottish Government's effective veto over the building of any new nuclear power stations. The Edinburgh Government is opposed to nuclear power and says it will use its powers under planning and the Electricity Act to stop any new builds. The Westminster Government of Gordon Brown is strongly pushing ahead with plans for new reactors. Suggestions that Westminster might be trying to circumvent the Scottish veto came after the Scottish Office presented its evidence to the Calman Commission, set up by the Scottish Parliament to consider the progress of devolution and any changes it thinks necessary.

Mr Murphy said Westminster has responsibility for energy policy while Edinburgh has responsibility for planning and a way had to be found to work together when there is conflict. The submission says there are difficulties when powers overlap - and nuclear is identified as one such area. The submission states: "It was clearly not the intention of parliament in passing the Scotland Act that the use or threatened use of devolved powers should undermine the delivery of reserved policies."

N-base Briefing 590, 13 November 2008

Australia starts shipping uranium to China. Australia's minister of resources and energy, Martin Ferguson, has welcomed following the signing of a bilateral safeguards agreement between Australia and China, the first shipment of uranium to China took place, late November.

Details about the shipment to China - including the quantity and destination - were not disclosed. Uranium is currently mined

at three locations in Australia: BHP Billiton's Olympic Dam and Heathgate Resources' Beverley mine, both in South Australia; and ERA's Ranger mine in Northern Territory. In April 2006, Australia and China signed two bilateral safeguards agreements that would open the way for Australia to supply uranium to China's growing nuclear energy industry. The Nuclear Material Transfer Agreement and Nuclear Cooperation Agreement put in place strict safeguards to ensure that Australian uranium supplied to China will be used solely to produce electricity. The Nuclear Transfer Agreement allows Australian uranium to be used in designated Chinese nuclear facilities, while the Nuclear Cooperation Agreement allows, among other things, for China to explore for uranium in Australia. Despite fierce opposition, New polling shows twice as many Australians (62 per cent) are against exporting uranium to countries with nuclear weapons than are in favour (31 per cent). The Newspoll found 40 per cent of Australians are against the export of Australian uranium to any country for use in nuclear power plants for electricity generation, and a further 22 per cent are against the export of uranium to countries that possess nuclear weapons, even if those countries have signed the nuclear Non-Proliferation Treaty (NPT). The survey of 1 200 adults, was conducted nationally by phone between 31 October and 2 November for the Australian Conservation Foundation.

WNN, 21 November 2008 / ACF Press release, 10 November 2008

The Nuclear free Future Award: this year's winners

Since 1998, the Nuclear-Free Future Award honors outstanding indigenous activists from different hemispheres, united in their struggle to save their traditional lands and cultures from uranium-mining. Their demand: Uranium? keep it in the ground!

Too little is known about the beginning of the nuclear fuel cycle when 85% of the original uranium orebody's radioactivity is left behind in the open rubble. Around the world three-quarters of the front-line victims come from First Nations: the Cree, Mirarr, Urguren, Pitjantjatjara, Tewa, Navajo, Tschuktschen, Kokotha, Apache, Touareg, Sami... Their traditional living spaces are being destroyed by radioactive dust spread by winds, their aquifers contaminated.

This year the award was given to **Jillian Marsh** of the Adnyamathanha Aborigine clan, Australia and **Manuel Pino** of the Acoma Pueblo, New Mexico, USA

Jillian grew up in the coal-mining town of Leigh Creek, in South Australia's Flinders Ranges. To Jillian and her clan the ranges are *Adnyamathanha yarta*, the country of the rock people. During the 1990s she joined a volunteer organization called Flinders Ranges Aboriginal Heritage Consultative Committee (FRAHCC). It provided a safe and respectful forum for all Adnyamathanha to raise concerns, particularly in regard to maintaining the natural heritage. Two of the biggest issues during this period were coming to terms with the introduction of Native Title legislation, designed to right past wrongs, and facilitating meaningful community consultation on the exploration and mining proposal for Beverley Uranium Mine.

The partnership between government and the mining industry ensures that uranium exploration and mining continues undeterred by Indigenous or general public concerns in a section of Jillian's homeland her people call *virdni yarta*: poison country. In August 2002, Jillian told a

Senate inquiry that mining proponent negotiations with the Adnyamathanha claimants to obtain their Native titles was "misrepresentative, ill-informed, and designed to divide and disempower the community". Today, with the expansion of the uranium mining lease, Jillian, squaring off against the partnership of government and industry, points out that consultation and negotiation processes are "still ill-equipped to give a fair and equitable voice to the Adnyamathanha community."

"We cannot keep exploiting and destroying our natural and cultural resources; we must become responsible and mature citizens of this nation."

Manuel Pino comes from the Acoma Pueblo, an ancient adobe village west of Albuquerque, New Mexico. Shortly after Manuel was born, in the 50ies, the earth was ripped open by Anaconda to give rise to Jackpile-Paguete - North America's largest uranium strip mine. Waste mining rubble and millings from processing yellowcake grew daily, the wind spreading the radioactivity across the New Mexico landscape. Kerr-McGee officials assured locals that there was absolutely no health danger. Pino didn't fall for the comforting disinformation - he started doing his own investigating. From this point on opposition to uranium mining played a central role in Pino's life. The theme for Manuel's sociology dissertation was *The Destructive Impact of Uranium Mining on Native American Culture*. Many men of the Pueblos and of the neighboring Navajo who worked at Jackpot mine died of cancer. At the 1992 World Uranium Hearing in Salzburg, Manuel gave the victims of the uranium boom in his homeland a loud voice. He has spoken out at a number of international conferences, and his theme remains ever the same: to make plain before the eyes of the industrial world that to say yes to nuclear technology means saying yes to human victims.

More information and source: <http://www.nuclear-free.com>

The NUCLEAR MONITOR

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

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

Receiving the Nuclear Monitor

US and Canadian readers should contact NIRS to obtain the Nuclear Monitor (address see page 11). Subscriptions are \$35/yr for individuals and \$250/year for institutions.

New on NIRS Website: www.nirs.org

Tell Warren Buffett to close UniStar Nuclear and cancel new reactors. Warren Buffett's MidAmerican Energy is purchasing Constellation Energy, 1/2 owner of UniStar Nuclear, which wants to build 4 new EPR reactors in the U.S. Tell Buffett no thanks, let's invest in sustainable energy instead. New petition on the front page of NIRS' website.

WISE AMSTERDAM/NIRS

ISSN: 1570-4629

Reproduction of this material is encouraged.
Please give credit when reprinting.

Editorial team: Dirk Bannink and Peer de Rijk.

With contributions from: WISE Amsterdam, Heinz Stockinger, International Panel on Fissile Materials (IPFM), Southwest Research and Information Center (SRIC), Mycle Schneider and Laka Foundation.

Next issue of the Nuclear Monitor (#681) will be mailed out December 18. That will be the last issue in 2008.

WISE/NIRS offices and relays

WISE Amsterdam

P.O. Box 59636
1040 LC Amsterdam
The Netherlands
Tel: +31 20 612 6368
Fax: +31 20 689 2179
Email: wiseamster@antenna.nl
Web: www.antenna.nl/wise

NIRS

6930 Carroll Avenue, Suite 340
Takoma Park, MD 20912
Tel: +1 301-270-NIRS
(+1 301-270-6477)
Fax: +1 301-270-4291
Email: nirsnet@nirs.org
Web: www.nirs.org

NIRS Southeast

P.O. Box 7586
Asheville, NC 28802
USA
Tel: +1 828 675 1792
Email: nirs@main.nc.us

WISE Argentina

c/o Taller Ecologista
CC 441
2000 Rosario
Argentina
Email: wiseros@ciudad.com.ar
Web: www.taller.org.ar

WISE Austria

c/o Plattform gegen Atomgefahr
Roland Egger
Landstrasse 17
4020 Linz

Austria

Tel: +43 732 774275; +43 664 2416806
Fax: +43 732 785602

Email: post@atomstopp.at
Web: www.atomstopp.com

WISE Czech Republic

c/o Jan Beranek
Chytlalky 24
594 55 Dolni Loucky
Czech Republic
Tel: +420 604 207305
Email: wisebrno@ecm.cz
Web: www.wisebrno.cz

WISE India

42/27 Esankai Mani Veethy
Prakkai Road Jn.
Nagercoil 629 002, Tamil Nadu
India
Email: drspudayakumar@yahoo.com;

WISE Japan

P.O. Box 1, Konan Post Office
Hiroshima City 739-1491
Japan

WISE Russia

P.O. Box 1477
236000 Kaliningrad
Russia
Tel/fax: +7 95 2784642
Email: ecodefense@online.ru
Web: www.antiatom.ru

WISE Slovakia

c/o SZOPK Sirius
Katarina Bartovicova
Godrova 3/b
811 06 Bratislava
Slovak Republic
Tel: +421 905 935353
Email: wise@wise.sk
Web: www.wise.sk

WISE South Africa

c/o Earthlife Africa Cape Town
Maya Aberman
po Box 176
Observatory 7935
Cape Town
South Africa
Tel: + 27 21 447 4912
Fax: + 27 21 447 4912
Email: coordinator@earthlife-ct.org.za
Web: www.earthlife-ct.org.za

WISE Sweden

c/o FMKK
Barnängsgatan 23
116 41 Stockholm
Sweden
Tel: +46 8 84 1490
Fax: +46 8 84 5181
Email: info@folkampanjen.se
Web: www.folkampanjen.se
c/o FMKK

WISE Ukraine

P.O. Box 73
Rivne-33023
Ukraine
Tel/fax: +380 362 237024
Email: ecoclub@ukrwest.net
Web: www.atominform.org.ua

WISE Uranium

Peter Diehl
Am Schwedenteich 4
01477 Arnsdorf
Germany
Tel: +49 35200 20737
Email: uranium@t-online.de
Web: www.wise-uranium.org

The NUCLEAR MONITOR

Nuclear Information and Resource Service
6930 Carroll Avenue, #340
Takoma Park, MD 20912

