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# NUCLEAR MONITOR

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# NEW FRENCH REGULATION MAKES NUCLEAR INDUSTRY AS SECRET AS MILITARY ACTIVITIES

**On 9 August, taking advantage of the summer "silence", the French Ministry of Economy, Finances and Industry published a decree (1) stipulating that information related to physical protection, emergency planning or transports of any *"nuclear materials"* will, from now on, present a character of secret for national defense and will be hit with "forbidden".**

**(595.5551) CRIIRAD -** The text of the decree is very short, but its scope is very large. Indeed, according to the law, are named "nuclear" all the materials that contain fissionable, fertile or fusionable elements such as uranium, plutonium, thorium, lithium-6, deuterium and tritium.

Thus, all types of nuclear fuel and most of nuclear waste are concerned. So, the secret defense extends from the nuclear fuel processing to reprocessing and storage. Only the extraction of uranium is excluded from the secret, but it has no incidence as France imports today all its ores.

All that concerning supervision, confinement, accountancy, and transport of those materials is henceforth classified, like all the data related to the emergency planning drills or the vulnerability of devices. The decree stresses that the interdict applies to all media, from simple spoken information up to computer file.

So a simple decree sets up, without precedent, a restriction of the freedom of expression and of the right to information about nuclear risks. It is a complete side of the civilian nuclear activities that escapes from the democratic control and are treated like military activities.

This decision is even less understandable when one knows that France has already at its disposal a complete set of juridical tools allowing to protect the confidentiality of sensitive data.

**When Outlaw make law**

Effectively, the true goals are not eventual terrorists but NGOs and reporters who publish data that the State and operators judge disturbing. In fact, the incriminated decree was written on the request of Areva-Cogema group; and in their hurry to satisfy this request, the authorities went even beyond what was demanded.

The "parti pris" (prejudice) of the French State is striking: so when, in violation of the law of 1991 on radioactive waste, Cogema piles up on its site of La Hague foreign nuclear waste much longer than the authorized duration, sanction is impossible.

Why? Because 12 years after this law has been published, no decree of application has been made! French Administration had no time to elaborate texts that allow to sanction Areva-Cogema's offences, but now managed to find some to silence NGO that could denounce it.

**Seriously threatened NGOs**

In fact, persons or organisms who infringe this new order draw upon themselves a very heavy penalty of up to 7 years of imprisonment or a fine of 100 000 Euros.

**IN THIS ISSUE:**

Some years ago, after the CRIIRAD laboratory checked the radiation given off by wagons that carried spent fuel, we warned railway employees and users on the radiation they received without any knowledge. Renewing this type of intervening could nowadays cost a awful lot!

One can always silence the "warners of danger" (*lanceurs d'alerte*), but our imposed "silence" will be deceitful: **to suppress information on risks does not suppress the risks itself, not at the least.** To prevent Greenpeace from warning the inhabitants of Chalons-sur-Saine that trucks carrying plutonium are stuck in the very heart of the city does not let disappear the dangers of this transport.

Moreover, who will believe that terrorists who choose to attack a transport of radioactive waste would need information from NGOs in order to accomplish their goal? The decree's aim is not to protect Areva-Cogema from terrorists, but from citizens' control!

**Resistance in action**

In reaction to the publishing of the "secret defense" decree, the CRIIRAD organized a national petition that is now carried along by circa forty associations, federations of associations and syndicates in order to request the abolition of the decree and to mobilize the people. It seems to work as thousands of signatures from all France are gathered.

Moreover, the Council of State was seized by two appeals for annulment in early October, one from environmental NGOs (Greenpeace, CRIIRAD and WISE-Paris), the other from journalist protection groups "Reporters sans Frontieres" (Reporters without Borders) and "Journalistes pour la Nature et l'Environnement" (Journalists for the Nature and Environment).

It's important that French society reacts strongly and quickly because the problem goes further and beyond nuclear questions.

In a democracy, authorities must ensure a just equilibrium between the right to information and the restrictions that are brought up in the name of the national security. When excessive and unjustified limitations are introduced, when they do not answer general interest but specific interests of an industrial group, one falls in the arbitrary... and arbitrary calls for revenge and violence which is what French authorities claim to prevent.

[This article was written by Corinne Castanier and translated by Valerie Huet. Commission for independent research and information about radiation (CRIIRAD) is a French NGO created in 1986 against official lies about the Chernobyl contamination. CRIIRAD possess its own private laboratory specialized in radioactivity measurement.]

**Reference**:

(1) *Decree related to the protection of national defense secret in the field of nuclear materials protection and control*, signed on 24 July 2003, publish in official journal of the Republic on 9 August 2003.

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# FIRST BRITISH BOMB TEST IN AUSTRALIA: 50 YEARS AGO

**On October 15, 1953, an atomic bomb code-named "Totem-1" was detonated at Emu Junction in the South Australia desert. It was the first British weapons test to be held on the Australian continent.**

**(595.5552) Iratiwanti / WISE Amsterdam -** Fifty years ago the desert skies of northern South Australia were filled with the "Black Mist"; a dense cloud of radioactive fallout from the Totem-1 test. Anangu - Aboriginal - people across the state's north suffered the impact of this dense cloud but were never forewarned, "Nobody got a warning, nobody". "Right here the smoke caught us, it came over us."

Eileen Kampakuta Brown recounts, "We tried to open our eyes in the morning but we couldn't open them...our eyes were sore, red and shut."

Between 1953 and 1963 the British government, supported by the Australian government, conducted 12 full-scale nuclear weapons tests and a series of "minor trials" (sub-critical tests without nuclear explosion) in the South Australian desert. Two of the tests were conducted at Emu Field (1953), the others at the South Australian Maralinga test site.

Before the Australian continental tests, one test (codename "Hurricane") was conducted on 3 October 1952 on a ship near the Monte Bello Islands (on the northwest coast of Australia).

Despite unsuitable meteorological conditions, Totem-1 was detonated on 15 October 1953. The radioactive

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## 25 YEARS AGO

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

**Then**

In issue 3 of *WISE Bulletin* we wrote about Dutch waste disposal plans: "Local opposition is growing to Dutch government plans to dump radio-active waste in salt formations in the province of Groningen in the north of the country. [...] All local and regional elected bodies are now refusing their cooperation with the plans. But the Dutch government (conservative), is determined to press on with test drillings announced for spring of 1979. The pressure is on because the official Dutch position is a halt to building nuclear power reactors until a solution has been found to the waste problem." (*WISE Bulletin*, December 1978

**Now**

The test drillings, planned for 1979, were cancelled after a resolution in Dutch parliament in November 1978. But plans for waste disposal in a salt dome continued until today. Research shifted to desk studies, mainly using an extensive amount of data from oil exploration drillings (*Kernafval en Kernethiek* (NL), Laka Foundation, January 2000)

In 1981, the OPLA commission (Commission Storage on Land) was created for a new period of research (1981-1993). In its first report in 1989, salt domes and layers on 26 locations were identified as "suitable" for waste storage in the provinces Groningen, Friesland, Drenthe and Gelderland. (*Kernafval in zee of zout? Nee fout!* (NL), H. Damveld et. al., 1994) This was in 1993 reduced to a number of 7, taking into account the depth of the dome, thickness and mining suitability. (OPLA Report 1a, November 1993)

From 1995 to 2000 work continued under the Commission for the Disposal of Radioactive Waste (CORA). This commission under supervision of the ministry of Economic Affairs also reviewed the option of disposal in clay formations, in the south of the country as well as the possibility for long-term aboveground storage. CORA also studied retrievable storage, i.e. the possibility to retrieve the waste from a disposal site after a certain period of time.

The present government is setting up a new commission for another 8 years period of research. The purpose of this commission would be to have a more European coordinated and financed research (Letter Secretary of Environment, 11 November 2002).

After 25 years of research, the Netherlands still has made no choice what to do with the waste. The desk studies on salt and clay may have resulted in more information about geological formations, but no site has been thoroughly investigated as test drillings were not allowed. Resistance against the underground is still fierce and when the concerned provinces are being mentioned (in reports, media, etc.), they almost immediately state that their cooperation will not be made.

The official Dutch government position is to keep the waste for an "interim" period of 100 years at the COVRA facility in Flushing, near the Borssele NPP. Unofficially (but often mentioned) is the idea to wait for a "European solution", a multi-national disposal facility in one of the European countries.

fallout was spread far across the testing range (up to 250 kilometers) and was still visible 24 hours after the test. Weighing 10 kilotons - comparable to Hiroshima's 15 kilotons - nuclear fallout from the Totem-1 explosion was responsible for the massive increase in radiation-related illness and genetic birth defects in communities across the outback.

"Everyone has been affected," say the Kupa Piti Kungka Tjuta - Senior Aboriginal Women of Coober Pedy. Many of the women, who between them represent the Yankunytjatjara, Antikarinya and Kokatha peoples, are survivors of the nuclear testing program.

"All of us were living when the Government used the country for the bomb," Eileen Wani Wingfield says," We were people without sickness. You haven't got one healthy child nowadays".

The Kungka Tjuta and many other Aboriginal people's testimonies were not included in the 1984 Royal Commission into the atomic testing program in South Australia. Exclusion, from the lack of an initial warning fifty years ago and from the Royal Commission, continues today; there has been no apology or compensation granted to Anangu people whose lives have been devastated by nuclear bombs detonated on their country.

Fifty years later this exclusion and devastation continues as the Federal Government plans to build a national nuclear waste dump in far-north South Aaustralia.

The Kungka Tjuta have been campaigning against the waste dump proposal for the past six years, "The Government thought they knew

what they were doing then. Now, again they are coming along and telling us poor blackfellas; Oh, there's nothing that's going to happen, nothing is going to kill you.

We know that the poison from the radioactive dump will go down under the ground and leak into the water. And we're worrying for our kids" (see *WISE/NIRS Nuclear Monitor* 587.5515: "Australia: planned waste dump faces opposition").

The Kungka Tjuta are generously offering the Australian community an opportunity to learn from the pain and loss of the past - to prevent the same Irati - poison - from disturbing the future.

25,000 free post cards have been released nationwide to commemorate the tragic Totem-1 detonation. In addition there were silent vigils and community events held across the country.

[There is a comprehensive media background briefing available via www.iratiwanti.org/totem1 including testimonies from members of the Kupa Piti Kungka Tjuta.]

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# INDIA TO START UP NEW URANIUM MINES

**To meet the increasing uranium demand of its nuclear program, India is planning to open two new uranium mines in the states of Meghalaya and Andhra Pradesh. Both sites are located in areas inhabited by tribal people. The new mines are said to be needed as the existing mines in the Jharkhand state cannot meet present and future demands (India plans to build six more NPPs).**

**(594.5553) WISE Uranium -** As a non-signatory state to the Nuclear Non-Proliferation Treaty (NPT) and the Comprehensive Test Ban Treaty (CTBT), India has to completely rely on its own uranium resources, to fuel its nuclear power and nuclear weapons programs.

Since the Indian uranium deposits are extremely low grade (by far less than 0.1% U), uranium production costs are several times the world market price, and the environmental impacts are comparatively large, due to the vast amounts of uranium mill tailings produced. India states its known uranium resources in the Reasonably Assured Resources (RAR) category as 54,470 t U, without assignment of a cost range, though.

**Jaduguda**
From 1967, the government owned Uranium Corporation of India Ltd (UCIL) has been producing uranium at Jaduguda (also spelled Jadugoda, Jadugora) in the Singhbhum (East) district of Jharkhand state (formerly part of Bihar state) - an area inhabited by the tribal Adivasi people.

The underground mine is located about 150 kilometers west of Calcutta and is working a vein type deposit with an ore grade in the 0.042% - 0.051% U range.

The deposit is accessed with a 640 meters deep shaft. The deposit has been explored to a depth of 800 meters and is open below this level. An auxiliary blind shaft is under development to access ore at depths between 555 and 900 meters below the surface.

It appears, however, that with increasing depth of the mine, the cost becomes too excessive even under Indian circumstances, and UCIL is now speeding up the development of other deposits.

The Jaduguda uranium mill processes not only the ore from the Jaduguda mine, but also ores from the nearby Bhatin, Narwapahar, and (since Novembver 2002) Turamdih mines. Moreover, operations at Bandurang will begin in a few months.

In addition, the mill processes pre-concentrates from the uranium recovery plants at the Rakha, Surda and Mosaboni copper mines (uranium as a by product of copper production).

The mill has a capacity of 2,100 t ore per day, and a production capacity of 175 t U per year. According to the World Nuclear Association (WNA), it produced 230 t U in 2002, though. According to some reports, the existing Jaduguda mines can supply uranium only until 2004.

An independent health survey conducted in 2000 by Sanghamitra and Surendra Gadekar showed a high incidence of congenital deformities in the vicinity of Jaduguda: There were 60 people with congenital deformities born near Jaduguda as against just 10 in otherwise similar villages. This result has been raising fears in the areas considered for new uranium mines (see also *WISE News Communique* 542.5238: "The Jadugoda case").

Though UCIL claims that the cases are not linked to uranium mining, the company has not made public a health survey it conducted on the residents. High incidences of tuberculosis, skin, lung cancer and other diseases also have been reported near Jaduguda.

**Domiasiat project, West Khasi Hills district, Meghalaya state**
With a uranium contents of 7,819 t U

and an ore grade of 0.085% U, Domiasiat is - under Indian circumstances - äa relatively high-grade, medium-tonnage deposit", located in the Cretaceous sandstones of Meghalaya state in northeastern India, 130 kilometers south of Shillong. The deposit falls in a very high rainfall area and is almost inaccessible for half the year.

The ore body is spread over a large area in two distinct blocks with the deposits just 45 - 50 meters below surface. UCIL plans to have two large open-cast mines in the area. The mill will have a capacity of 1,370 t of ore per day, and it will produce 160 - 200 t U per year, for 22 years.

Opposition from the local Khasi tribe so far has been preventing UCIL from developing the mine at Domiasiat. The Khasi district council says it owns the land, and the state government - or the federal authorities - cannot acquire it. The district council had granted permission for UCIL to "conduct exploratory surveys" but not to undertake commercial mining. But the company's temporary lease for exploration was recently withdrawn by the Meghalaya state government.

One senior UCIL official said: "Every time we turn up at the uranium mines, the tribes people chase us with bows and arrows and swords." "They call us the agents of death and threaten to kill us if we try to mine uranium." For anticipated radiation hazards, the mine project is opposed also from NGOs such as the Meghalaya People's Human Rights Council.

According to the Atomic Energy Act of 1962, the Government of India would be in the position to override local governments in nuclear issues, however, UCIL Chairman and Managing Director (CMD) Ramendra Gupta meanwhile has confirmed that the proposed mining of uranium ore would not be started until the people of the area welcome the project. "We will start the project only after we convince the people that the project is in their interest," he said, and "The project will only be started with public approval".

**Lambapur — Peddagattu project, Nalgonda district, Andhra Pradesh state**
With 11.02 million t of uranium ore reserves, containing 4,800 t U at an ore grade of 0.044% U, the Lambapur — Peddagattu deposit is a "medium-sized deposit of moderate-grade" - under Indian circumstances.

The near-surface deposit was discovered during the early 1990s, adjacent to the unconformity contact between basement granites with overlying Proterozoic Srisailam Quartzite close to the northwestern margin of the Cuddapah basin, 120 kilometers southeast of Hyderabad.

UCIL and state government officials wanted to keep attendance [to public hearings] to the bare minimum so that they did not have to field uncomfortable questions.

An underground mine is projected for Peddagattu, while open-cast mining will be carried out at Lambapur. The uranium mill is proposed to be set up in the Dugyal and Mallapuram villages (18 kilometers away from the mines), with a capacity of 1,250 t of ore per day for 20 - 25 years and an annual mill production of 131 t U. UCIL plans to acquire 526.65 hectares for the mines and 318.25 hectares for the processing plant.

The new mines at Lambapur and Peddagattu will be located along Adivasi habitations. Mining will be conducted over 400 hectares of the Rayaram reserve forest. The Rajiv Gandhi-Nagarjunasagar Tiger Reserve is less than 6 kilometers from the proposed mining area, though no industrial activity shall be permitted within 25 kilometers of a notified sanctuary, according to the Indian Wildlife Act.

The uranium mill will be just 3 kilometers away from the Azmapuram reserve forest and just one kilometer from the Nagarjunasagar dam which supplies water for irrigation while the Akkampalli reservoir is 4 kilometers away, which is the off take point for Hyderabad's new drinking water supply scheme.

Public hearings held on 19 August 2003, demonstrated the deep division the mining project has caused in the villages: those supporting it are hoping to get considerable compensation for lands taken over by the project and to get jobs.

They also welcome the expected development of the area in terms of better roads (there is no motorable road to Peddagattu), phone connectivity, electricity, and so on.

Those opposing the project, led by the Movement Against Uranium Project (MAUP), a coalition of various NGOs, fear the consequences of exposure to radiation.

The Andra Pradesh Pollution Control Board had originally planned to organize only one single hearing at Peddagattu village, which is located on a remote hillock in Nalgonda. Seemingly, UCIL and state government officials wanted to keep attendance to the bare minimum so that they did not have to field uncomfortable questions. But the board was forced to hurriedly arrange another hearing on the same day in the relatively accessible Pedda Adiserapally, after the Andra Pradesh High Court intervened in the matter.

Strong protest marked the meeting at Peddagattu, where the officials failed to come up with satisfactory answers to people's queries on health hazards. The hearing at Pedda Adiserapally saw the presence of a large police force.

UICL has tried to influence the public opinion in favor of the project. It sent seven representatives op local

villages to the Jaduguda mining area and some of them became 'spokespersons' for the UICL.

However, opponents doubt whether these people have gone to Jaduguda at all. They reportedly saw lush green fields and all round development in Jaduguda, which is hardly to believe.

UICL also published pamphlets denying any hazard from the mining industry and UICL's project EIA summary would be full of "half-truths, blatant lies and be generally shoddy".

UCIL for instance made incorrect claims on the environmental impact of mining low ore grade uranium: "while that in the mines of other countries like Canada is 2-12 per cent. This translates into lower risks (to human health and the environment in Andra Pradesh)". With these kinds of untrue claims, UCIL denies the fact the low grade ore needs tremendous amounts of ore being mined and milled, leaving huge quantities of waste tailings.

Mines, Minerals and People has calculated that after 20 years of mining about 7.5 million metric tons of potentially radioatice waste would be produced.

While the struggle of the opponents to the new uranium mine projects is ongoing, a new menace is looming now also for the region of the existing mine in Jaduguda: in July 2003, the Government of India has agreed to the state of Jharkhand's proposal to set up a äminor" (whatever this may mean under Indian circumstances) nuclear power plant in the state. Jaduguda was the most likely site...

[t U = metric tons of Uranium]

**Sources**: several articles from *The Shillong Times, The Assam Tribune, The Times of India, The Hindu*, Indo-Asian News Service, *The Telegraph* (Calcutta), *Deccan Herald, Outlook India, Nucleonics Week, Down to Earth*, OECD/IAEA; Email from Centre for Resource Education (India), 18 August 2003

**Contact**: WISE Uranium

# AUSTRIA: LIBERALIZATION INCREASES NUCLEAR ELECTRICITY IMPORTS

**Next month it will be 25 years since the people of Austria voted "no" in a referendum on the Zwentendorf nuclear power plant, at that time under construction. This anniversary will be celebrated in the *For a Brighter Future* symposium in Linz. As a non-nuclear country it often protested against the risks of nuclear facilities in neighboring countries. But due to the liberalization of the electricity market, the import of nuclear electricity has been growing.**

**(595.5554) WISE Amsterdam -** In the referendum of 5 November 1978 a majority of 50.47% voted against the opening of Zwentendorf. In the early 1980s there was an attempt to hold a new referendum to overturn the outcome of 1978, but that attempt failed.

Austria has often protested against risky NPPs near its borders, such as the Czech Temelin reactors. And in talks about the accession of new countries to the European Union, it made an issue of the phase out of nuclear energy (see *WISE/NIRS Nuclear Monitor* 589: "25 years ago"). One might consider Austria as "non-nuclear", but an increasing amount of nuclear electricity is being imported into the country.

Because of the liberalization of the electricity market, Austrian electricity utilities can now sell their electricity on the international market place and buy electricity from other (foreign) utilities. As a result electricity from hydro plants is sold and exported at high prices and cheaply offered nuclear electricity imported into Austria. As a result, more than 15% of the electricity has become nuclear generated.

Environmental NGO Global 2000 and Greenpeace Austria recently calculated the share of energy sources for the year 2002. Leader is Tyrolean Hydro Power (TIWAG) with a nuclear share of 27 percent. "When this continues, they need to change their name next year to "Tyrolean Nuclear Power", said Global 2000 in a press release.

The developments from 2000-2002 can be seen in the table.

| | 2002 | 2001 | 2000 |
|---|---|---|---|
| BEWAG | 1% | 0% | 8% |
| Wienenergie | 17% | 15% | 16% |
| EVN | 17% | 22% | 20% |
| Energie AG | 12% | 12% | 10% |
| Salzburg AG | 18% | 10% | 4% |
| STEWEAG-STEG | 22% | 14% | 8% |
| KELAG | 17% | 10% | 6% |
| TIWAG | 27% | 21% | 21% |
| VKW | 16% | 13% | 15% |

"Austria has developed itself into a good market for nuclear electricity utilities. The consequences of this electricity market liberalization contradicts therefore the example of a nuclear free Austria", said Global 2000 on the occasion of the second 'anniversary' of electricity market liberalization on 1 October. Austria has become one of the biggest electricity traders of Europe.

The trade in cheaply dumped electricity also has another negative consequence according to Global 2000. Due to the low prices, energy efficiency measures will become less and less attractive to the industry.

Next to the increased nuclear imports, another consequence of the liberalization is getting visual: the sale of Austrian utilities to foreign nuclear companies.

An example is the Austrian utility Energy-Supplier Lower Austria (EVN): Energy Steiermark AG (EstAG) and Energy Baden-Württemberg (EnBW) have together about one third of the shares of EVN. Both companies are controlled by Electricity of France (EdF), the world's biggest nuclear utility.

The Austrian government now plans to abandon the obligation that a majority of the shares must be public property. That will open the door to a further sale to nuclear companies.

Greenpeace and Global 2000 criticize the lack of action by federal and regional governments against the developments. They have urged the regional state governments to use their powers as majority shareholders in the state-organized electricity utilities, "so that Austrian electricity suppliers will no longer trade in nuclear electricity".

Both organization have urged consumers to switch to 100% clean energy suppliers, such as Ökostrom AG and Alpen-Adria-Energy AG.

**Sources**: press releases Global 2000, 30 September and 9 October 2003

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# BRING THE OUTSIDERS IN: THE BNFL STAKEHOLDER DIALOGUE

**NGOs and action groups working on the issue of nuclear energy are often being asked about their opinion on the issue of waste storage. "Given the fact that radioactive waste has been produced - and will be there for ages to come - what do you think should happen - which solution is the best" is the common question. And most NGOs reply: "as long as the production of the waste is continuing we will not participate in any "solution"-finding efforts. Production of it must first be halted". Nevertheless we thought it be interesting to run the following article as it gives an good insight in how the process towards finding a common ground could be undertaken.**

**(595.5555) David Lowry -** Decades of listening only to the pro-nuclear lobby have left the government muddled and lost, but there is an alternative. On 15 September this year, the member states of the International Atomic Energy Agency gathered for their annual conference in Vienna.

In his opening statement, the agency's director general, Mohamed el-Baradei, commented: "Regarding the long-term management of spent fuel and radioactive waste, we are seeing slow but steady progress."

And he noted that "in Europe, the Directorate-General for Energy and Transport of the European Commission recently proposed a directive that would require member states of the European Union to decide on repository sites by 2008 and to have the sites operational by 2018".

What of UK policy? Some time over the next month, the government will have a new nuclear advisory body to help it plan and manage its nuclear waste strategy. Around 400 people are said to have applied for the 12 positions on the Committee on Radioactive Waste Management, among them several open critics of the government's unfolding nuclear waste plan. Will ministers dare appoint any of these critics?

There is a precedent for supporters of the nuclear industry working hand in hand with its opponents. Five years ago BNFL, battered by negative press coverage and worn down by public hostility towards its nuclear fuel activities, took a radical step. It convened a large meeting of "stakeholders" at a rural retreat near Chester to discuss the activities of BNFL, particularly as they affect the environment.

This eclectic group identified a list of concerns (at the top of which stood nuclear reprocessing) and identified "trust" as the key issue to be addressed in further meetings.

Thus the *BNFL Stakeholder Dialogue* was founded, and it has since staged dozens of meetings involving a broad range of interested parties: these include BNFL management and trade unionists; government departments; local authorities; its main UK customer, British Energy; regulators such as the Nuclear Installations Inspectorate and the

Environment Agency (and, after September 2001, the Office for Civil Nuclear Security); and independent academic experts, as well as local and national - and, indeed, international - environmental critics.

The Dialogue has been mediated from the start by the U.K. Environment Council - which describes itself as an independent U.K. charity, bringing together people from all sectors of business, non-governmental organizations, government and the community to develop long-term solutions to environmental issues. Meetings are held not on BNFL property but at neutral venues, mainly in Manchester or Leeds.

Substantial reports on nuclear waste, radioactive discharges, nuclear transport, West Cumbrian regional employment and plutonium have been collectively drawn up and, importantly, published in full on the Environment Council website (www.the-environment-council.org.uk/docs/PuWG_report_mar_03.pdf), putting much new data into the public domain.

Current discussions center on the security of nuclear sites and on the business future for BNFL following the government's decision to split up the company when it creates the new super-quango, the Nuclear Decommissioning Authority.

It hasn't all been plain sailing, with several green groups, including Greenpeace, dropping out to concentrate on campaigning. But the output of the Dialogue to date is increasingly interesting.

In March this year, after an 18-month collaborative study, it produced its assessment on the future of plutonium. Running to nearly 200 pages, it is the most comprehensive technical, institutional and political study of the options available (see also *WISE/NIRS Nuclear Monitor* 587.5517: "UK: Plutonium working group").

In a reply to the Irish Green MEP Nuala Ahern, the European Commission praised the study as "a useful contribution to the ongoing debate about the long-term management of separated plutonium stocks", adding that "the Commission takes note that [BNFL] agrees, in general, with the recommendations of the Plutonium Working Group and plans actively to work together with the British government and other stakeholders to take the recommendations forward".

The report reveals, among other things, that BNFL holds around 80,000 kilograms of plutonium at Sellafield. Given that a devastating nuclear bomb can be built with just 5 kilograms of plutonium, the existence of such a vast stockpile creates a security risk - a tiny fraction of it in the wrong hands could cause a calamity.

> Ministers should discard the historic bias towards blinkered pro-nuclear advisers which has served them so badly and appoint a majority of critical experts.

To reduce the risk, the working group proposed an innovative strategy of "immobilization" which contrasted with BNFL's preferred option of recycling the plutonium in mixed uranium-plutonium (MOX) reactor fuel. This alternative is to convert the plutonium into a passively safe form, preferably in a ceramic matrix, suitable for long-term storage or perhaps eventual disposal.

A key condition laid down by the working group is that "there should be a very high level of assurance that the plutonium could not be used illicitly outside the international safeguards regime".

The Dialogue is not a sop to critics or a piece of window-dressing. It provides BNFL with alternative perspectives it would not previously have encountered, and it also provides the critics and the public with information and a platform for constructive ideas.

It seemed encouraging, therefore, when a presentation of the plutonium report was made to the prime minister's special adviser on industry soon after its release.

But oddly, in a written reply to the Labour MP Llew Smith on 17 July, Tony Blair declared: "As far as I am aware, I have received no representations" on the future management of plutonium. BNFL may be trying to listen to a wider range of views, but Whitehall is harder to penetrate.

Who was advising on nuclear policy and how good was the advice? The answers are depressing. The recent behavior of Michael Meacher, the former environment minister, prompts similar thoughts. Besides causing a stir with his verdict on the World Trade Center attacks, Meacher has been asking some awkward questions about nuclear waste management at Sellafield.

The pity is that he did not press these questions when he was a minister in a position to change things, but this begs two important questions: who was advising him on nuclear waste policy, and how good was the advice?

The answers are depressing. It is clear that the government's official adviser - the Radioactive Waste Management Advisory Committee - has failed to point out to ministers the environmentally disastrous and economically insane implications of continued reprocessing.

Moreover, the Environment Agency, with its mission to protect our environment, has failed to regulate Sellafield tightly enough to halt unnecessary radioactive discharges to the sea and air. What is missing is the critical voice.

The government now has an opportunity to improve on this, when it chooses the 12 members of

the Committee on Radioactive Waste Management next month, and again next year with the creation of the super-quango on nuclear decommissioning.

The BNFL Stakeholder Dialogue offers a valuable model. Ministers should discard the historic bias towards blinkered pro-nuclear advisers which has served them so badly and appoint a majority of critical experts.

Such critics may traditionally have been excluded from bodies of this kind, but they have a far better record for analyzing and predicting the development of the nuclear industry than the industry's cheerleaders.

[This article was published in the *New Statesman* of 29 September 2003 and was written by David Lowry, an independent environmental research consultant and a member of the BNFL stakeholder dialogue nuclear waste]

**Source**: *New Statesman*, 29 September 2003
**Contact**: WISE Amsterdam

# IN BRIEF

**U.S.: Secretive Radioactive Reactor Vessel Shipment.** "Midnight dumping" came to mind when the dismantled reactor vessel of the closed Big Rock Point reactor began its surprise and secretive 1,000 mile (1,600 kilometers) journey from nor-thern Michigan to South Carolina on 7 October. Only through the work of a reporter of the *Gaylord Herald Times* was NIRS even notified, so that it could spread word to the news media and concerned citizens along the route through 8 states. U.S. Nuc-lear Regulatory Commission (NRC) regulations did not require advance notification to state governments or emergency responders, nor security precautions. The heavy haul truck holding the 290 ton cargo broke an axle on a bridge over the Boyne River. The reactor then spent the night at a gas station (What about an accident or attack? What about all that flam-mable/explosive gasoline?) which is also a bus stop for school children.

Since Consumers Energy claimed to the press that the public faced zero radiation dose, residents of Gaylord lined the streets to watch the reactor go by and be loaded onto a train. Actually, NRC allows a chest x-ray (10 mRem) per hour to persons 2 meters (6.6 feet) away. In an accident, persons 1 meter (3.3 feet) away are allowed to receive 1 Rem (100 x-rays) per hour. When Kevin Kamps of NIRS and a colleague tried to take an independent radiation reading of the transport near Toledo, Ohio they were arrested by railroad police for "trespassing". Two days after the reactor passed through Grand Blanc, MI another train on the same tracks suffered a 30-car derailment; the local fire chief speculated it was due to the reactor's heavy weight degrading the tracks. The reactor will be buried in an unlined hole in the ground at Barn-well, South Carolina, a "low" level radioactive waste dump that is already leaking. It will arrive at the end of the month. **(NIRS, 23 October 2003)**

**Dismantled reactor vessel will be shipped aroud the tip of South America.** Utility Southern California Edison has arranged a route to ship its dismantled reactor vessel of the San Onofre-1 reactor to the South Carolina disposal site. The three month long trip could begin within weeks. The 668-ton reactor vessel will be driven from San Onofre in California (west coast) to Camp Pendleton, and will be shipped about 11,000 miles (17,700 kilometers) by barge around the tip of South America to South Carolina (east coast). Earlier this year, the Panama Canal Authority refused to grant a weight waiver to ship the reactor vessel through the 50-mile waterway. The Port of Charleston, South Carolina, said in February it would deny entry of the reactor due to terrorism concerns. Since the effort to move the vessel began in 1999, Edison had also faced disputes with railroad and state Department of Transportation officials, as well as opposition from environmentalists. **The State (Associated Press), 15 October 2003**

**Finland's fifth reactor most likely of EPR design and built at Olkiluoto NPP.** Finland's fifth reactor will be built at the Olkiluoto NPP (now two reactors) in Eurajoki. The reactor will most likely be built by the French-German company Framatome ANP - Siemens AG, based on their offer for the European Pressurized water Reactor (EPR) with a capacity of 1,600 MW. A contract has not yet been signed, but power company TVO (Teollisuuden Voima Oy) has announced that it has ended negotiations with other bidders like General Electric and Russian company Atomstroyexport. Main details such as price and technical conditions were agreed with all bidders but for detailed specifics the talks now continue with Framatome/Siemens. TVO was not able to continue negotiations in detail with all bidders and has chosen one. Sources said that General Electric had come in with a too high bid and that the Russian design could face too much political and public opposition. Besides, TVO would have chosen the largest reactor it could get because it has no guarantee it may build another one in the near future.

According to TVO, financial aspects were decisive in the choice of location and manufacturer. TVO compared the price of electricity production to the costs of the investment. The total value of the investment will be 3 billion Euros (US$ 3.55 billion), including nuclear waste management expenses, according to TVO. That investment is in fact the largest private industrial investment in Finnish history. On 16 October TVO stated that all key issues have already been agreed upon with Framatome, but that in theory it is possible that the manufacturer of the reactor will still change if some disputes should arise. Observers close

to the negotiations believe however the deal has been closed in practice. A contract is expected to be signed by the end of this year. The new reactor should be in commercial operation by 2009. If the EPR will be built (there is still much opposition), it will be the first of this new design in the world.
***Nucleonics Week Special*, 16 October 2003; Press release TVO, 16 October 2003; *Helsingin Sanomat*, 17 October 2003**

**U.K. Ministry agonizes over fate of nuclear subs.** The British Ministry of Defense is searching for a publicly acceptable solution for disposing of 27 highly radioactive submarine reactors. In a clear acknowledgement that it is running out of time and space to moor the redundant submarines, the Ministry consulted the residents of two dockyard towns about what to do with the rusting hulks. Seven hulks are at Rosyth dockyard in Fife and four at Devonport in Plymouth. They have had the fuel rods taken out but remain highly radioactive. The urgency is that the 16 nuclear submarines still at sea are coming to the end of their lives and by 2012 there will be no mooring space left. There are three possibilities to solve the problem of the rusting nuke subs.

One is to cut off the front and back of the submarines, encase the 800 tons reactors in metal and store them temporarily in a giant trench. This however postpones the problem of final dismantling to future generations. Second solution is to cut the reactors up into small pieces to be packed in concrete for storage in bunkers until a national repository is opened (not expected before 2050). There are fears that this choice will expose workers to radioactivity but it is favored by BNFL, Babcock Engineering and DML, three companies who put forward proposals to deal with the submarines. A third and contro-versial idea is to move the subs to a site where they could be hauled up on land and put in a "grave". This is intended as storage until the radioactivity has decayed sufficiently to dismantle them. There may still be other possibilities and a decision must be made in about two years time.

Greenpeace has congratulated the Ministry for running the consultation but added that the company-proposals mostly involve cutting up reactor compartments, thus dispersing radioactivity in the environment. Meanwhile dockyard operator DML may use the Dounreay plant in Scotland to store reactors from redundant subs. DML wants the Ministry of Defense to explore the possibility of extending the site.
***The Guardian*, 18 October 2003; *Evening Herald, The Voice of Plymouth*, 21 October 2003**

**Flaw is found in plan to bury nuclear waste at Yucca Mountain.** The U.S. Energy Department of Energy's (DOE) design for burying nuclear waste at Yucca Mountain, Nevada, could be unsafe because of rapid corrosion of waste casks, according to the Nuclear Waste Technical Review Board. The expert panel, that in January 2002 called evidence supporting Yucca Mountain "weak to moderate", strongly urges DOE to reexamine the current repository design and proposed operation. Nuclear waste gives off heat as well as radiation, and DOE is considering taking advantage of that, by spacing the waste containers closely. That would heat the tunnels to nearly 300 degrees Fahrenheit (150 degrees Celsius) in the first few decades. According to DOE, this will keep the metal casks dry and thus prevent corrosion. But the Nuclear Waste Technical Review Board, a panel created by Congress to advise DOE, believes something else. According to a draft letter sent to DOE, two new sets of laboratory tests "cast doubt on the extent to which the waste package will be an effective barrier under the repository conditions that have been presented to the board". One board member, Thure E. Cerling, a professor of biology and of geology and geophysics at the University of Utah, said that the problem was that "most reactions take place faster at higher temperatures", and that this included rust. Any available water would be mixed with salt, present in the tunnels' dust, the experts said. And just as salt prevents water from freezing, it also makes it harder to boil and evaporate. The salty water could lead to pitting and perforation, according to the experts. The board letter can be found at www.nwtrb.gov/corr/mlc014016.pdf.
***The New York Times*, 21 October 2003; Letter of the Nuclear Waste Technical Review Board to DOE, 21 October 2003**

**Air crash risks at Yucca Mountain.** Another concern arose when the U.S. Nuclear Regulatory Commission (NRC) told DOE that the department needed to present more up-to-date information on air crash risks near Yucca Mountain. An assessment on the air crash risk is necessary before DOE can make a license application to NRC in December 2004. According to the NRC, DOE has not used recent data on flights above the proposed site. Besides, DOE had not provided any basis for its assertion that even under accident conditions a pilot would be able to avert a crash into the repository. NRC has now asked to DOE to provide an air crash frequency analysis and an updated map of air crash sites near Yucca Mountain. The Yucca Mountain area is flanked by flight paths for Air Force jets on their way to the Nellis gunnery range and live ordnance is sometimes used in exercises. There are totally 28 airports within a 100 mile (160 kilometers) radius.
***NuclearFuel*, 13 October 2003**

**NIRS opposes MOX test at U.S. Duke Power's NPP.** NIRS filed five objections with the U.S. Nuclear Regulatory Commission against Duke Power's plan to test MOX fuel at its Catawba NPP on Lake Wylie. Duke wants to test four MOX assemblies beginning in 2005, and begin full scale use at its Catawba and McGuire reactors in 2008. A licensing panel will hear the objections in Charlotte on 3 and 4 December. According to NIRS Duke hasn't proven that the test material is the same as the surplus plutonium to be used in full production, or that it will be manu-factured the same way. The program is intended to dispose of 34 metric tons of surplus weapons plutonium. The test fuel will be made

in France (see *WISE/NIRS Nuclear Monitor* 593.5543: "U.S. MOX to be fabricated at unsafe French Cadarache plant"). Furthermore no plan exists for special disposal of spent MOX fuel, according to NIRS.
***The Charlotte Observer*, 22 October 2003**

**Barsebäck-2 gets approval to restart.** The Swedish Nuclear Power Inspectorate (SKI) has approved the restart of the Barsebäck-2 reactor. The reac-tor was shut down on 15 January to repair broken "thermal mixers" in the feed water system. After repairs the reactor was restarted on 7 March but shut down again this summer for routine maintenance. It was long before January known that there was a problem with the system but the operators refused to shut down the reactor at an earlier stage. Because of this the SKI had filed a criminal complaint against the operator on 19 August (see *WISE/NIRS Nuclear Monitor* 592: "In brief") and refused a restart permit. Now, SKI has given permission for restart, but requires written status reports every four months and a repair of a leakage from its containment. Besides, it wants a plan for independent safety inspections.
***Nucleonics Week*, 23 October 2003**

**GAO wants tighter lock on radioactive sources.** Securing radioactive sources is a significant security concern in Arizona and other U.S. states, despite increased safeguards put in place since the terrorist attacks of 11 September 2001. This conclusion is made in a recent study by the U.S. General Accounting Office (GAO). The GAO investigation concluded that the federal government and private sector need to improve security related to sealed sources as well as the tracking of it. According to the report, there are 20,289 organizations and businesses in the U.S. that have licenses for the use of radioactive sources. The federal report raises concerns about the ability of state agencies to keep track of them. Since 1998, there have been 1,300 incidents of lost or abandoned radioactive waste nationwide.
**Website GAO (www.gao.gov); *The Business Journal Phoenix*, 13 October 2003**

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## THE NUCLEAR MONITOR

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

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

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