

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



JULY 18, 2008 | No. 675

MONITORED THIS ISSUE:

FRANCE: LEAKS AND ACTIONS	1
NUCLEAR WORRIES INCREASE AS GERMAN WASTE DUMP MINE FLOODS	2
INDIA: DRAFT AGREEMENT WITH IAEA-THE LEFT WITHDRAWS SUPPORT	4
CONSORTIUM SELECTED FOR SELLAFIELD	5
NUCLEAR POWER IN SPAIN CLOSER TO A PHASEOUT?	6
NUCLEAR POWER PLANTS AREN'T SAVING OUR SEAS	8
HOLIDAY? SUMMER CAMPS! IN BRIEF	9

FRANCE: LEAKS AND ACTIONS

In early July, French President Sarkozy announced that France will build a second 1650 MW EPR nuclear unit, to follow that at Flamanville which is due to enter service in 2012. The site is to be decided next year and construction is planned to start in 2011. In the same week, on July 8, 74 kg of uranium leaked into two local rivers in southern France. Antinuclear activists blocked the restart of construction of the EPR.

(675.5881) **WISE Amsterdam** - While safety agencies in France are playing down the risk to public health from the July 8 uranium leak at the Tricastin nuclear complex, water-usage bans have worried skeptical residents and environmental organizations. The leak occurred when a tank containing a solution with traces of non-enriched uranium was being cleaned at a processing facility operated by the Socatri group, a subsidiary of nuclear giant Areva, 40 kilometers (25 miles) from Avignon. The contaminated liquid then overflowed from a reservoir and seeped into the ground and the Gaffiere and the Lauzon, two nearby rivers that flow into the Rhone.

Charles-Antoine Louet, an official from France's nuclear safety agency (ASN), has said that the "risk is slight," according to the Associated Press. Although Louet's organization estimates that uranium concentrations in one of the contaminated rivers are about 1,000 times their normal levels, he stressed that the solution was toxic but only slightly radioactive. Despite ASN's assurances, local authorities have banned the use of well water from three nearby towns as well as using water from the contaminated rivers to irrigate crops. Residents have also been banned from swimming, water sports and fishing in the contaminated waters.

The Réseau "Sortir du nucléaire" reminds that the owner of Socatri is Areva. According to the French authorities, the

population was informed only at least 12 hours after the accident. That means people may have drunk or swum in contaminated water. Areva probably tried to hide the accident, but due to the amount of released uranium, they realized that they had to inform.

"Thirty cubic meters was poured but part of it was caught by a security system, which means that only 18 cubic meters actually fell on the ground and in the water," a spokesman for Socatri, an Areva subsidiary, said. The prefecture or local government council of Vaucluse said a total of 74 kilograms of natural uranium fell into the water while 150 kilograms remained on ground on the Socatri premises. The nuclear safety authority said the uranium concentration stood at 12 grams per liter.

The maximum recommended concentration of uranium in drinking water, according to the World Health Organization, is 2 micrograms per liter. In the USA, the maximum recommended is 20 micrograms per liter. Thus a spill of 74 kilograms of uranium would require 37 billion liters of water to dilute it to the maximum pollution levels recommended by WHO (that's 37 million cubic meters)

Two days later, on July 11, the local French newspaper La Provence published extracts of a May 2007 report which said that the Socatri site had already seen repeated leaks due to old pipes that carry waste liquid. On July 11

France's nuclear safety authority (ASN) after inspection of the site said that Socatri had poorly managed the leak. The inspection also revealed that security measures put in place by Socatri to prevent further leaks were not satisfactory, and that operational conditions at the site at the time of the event displayed irregularities. The ASN also indicated that Socatri had ignored a leak found in tank a week earlier.

In the meantime, local authorities have maintained bans on fishing and swimming in the affected areas, as well as the use of contaminated water for consumption or irrigation.

In the weeks before, several direct actions took place against the EPR. On June 24, 20 Greenpeace activists stopped construction of the EPR in Flamanville from restarting by blocking the entrance of three quarries which supply sand and gravel for the build, as none of the safety problems that shut the construction down in May has been addressed. The Greenpeace activists used chains, lockers and barrels to block entrances to the quarries at Montegourg, Lieusaint and Derville in Normandy and set up banners denouncing "EPR, the great bluff". The EPR, which promises to be safer, more reliable and cheaper than previous

nuclear reactors, is beset with safety problems and spiralling costs. On 21 May, the French Nuclear Safety Agency

Production pressure vessels

Areva's Creusot Forge subsidiary in Burgundy announced that it was investing to increase production of heavy nuclear components, including large reactor pressure vessels. This will give it a second source of supply for EPR components, additional to Japan Steel Works. Since 1975 Areva's Chalon/St. Marcel facility, also part of the Burgundy Nuclear Partnership grouping, has produced steam generators and pressure vessels up to 500 tons for all the French power reactors as well as exports. This Le Creusot expansion is one of a number of initiatives in Europe, North America and East Asia to increase production capacity for heavy nuclear components. Early in June Mitsubishi Heavy Industries (MHI) announced that it is doubling capacity for large nuclear power plant components, notably reactor pressure vessels, at its Kobe shipyard. (see Nuclear Monitor 670, 27 March 2008, for more on pressure vessels construction capacity) **WNN, 4 July 2008**

ordered a halt to the construction of Flamanville 3 following the discovery of chronic problems affecting the quality of the construction since building work began in December 2007.

After the 3 blockades against the quarries, the blockade against the concrete manufacture, and the occupation of a very high voltage pylon for several days, a fifth action against nuclear industry in Lower Normandy within 10 days took place. A train

containing 4 casks of nuclear waste started June 29, from the former NPP of Caorso in Italy to the reprocessing plant at La Hague. It is one of the 27 transports due to move 235 tons of old nuclear waste to La Hague. The train was stopped in Normandy during several hours due to 4 antinuclear activist from GANVA, (Groupe d'Action Non Violente Antinucléaire (antinuclear non violent action group) locked-on on the railway. Around 10 people have been arrested.

On July 12 a demonstration 'Pour un monde sans nucléaire' (for a nuclear-free world) brought some 7,000 people from all over France to Paris.

Sources: Press release Greenpeace 24 June / GANVA press release 1 July / Der Spiegel online (Germany), 9 July / Sortir du nucléaire, 9 July / Reuters, 9 & 11 July / Gordon Edwards, mail 10 July (all sources from 2008)

Contact: Sortir du nucléaire, 9 rue Dumenge, 69317 Lyon, Cedex 04, France
Tel: +33 (0)4 7828 2922

Email: contact@sortirdunucleaire.org
Web: www.sortirdunucleaire.org

NUCLEAR WORRIES INCREASE AS GERMAN WASTE DUMP MINE FLOODS

An old potash mine in north Germany containing nuclear waste is flooding at a rate of 12 cubic metres a day and throwing up all sorts of questions about safe keeping of nuclear leftovers for a million years. The design for nuclear waste storage in the now flooding Asse II potash mine is the same as for the specially dug salt mine at Gorleben, seen as the likely permanent repository.

(675.5882) Diet Simon - Forty years after dumping in Asse II (near Wolfenbüttel, about 80 kms southeast of Hannover), started, massive problems are appearing, though nuclear waste storage was researched there from 1967 to 1992. The federal environment minister, Sigmar Gabriel, in whose electorate the research mine is located, has said he wants to be more thoroughly informed on how radioactive waste is handled.

Anti-nuclear activists will

perceive that as a sick joke because they accuse the Social Democrat of caving in on safety concerns to the nuclear lobby and its conservative political backers.

At any rate, Gabriel has demanded a comprehensive report about Asse II from the Lower Saxony state environment ministry which has the supervisory responsibility for Asse II. Lower Saxony has a conservative government headed by a decidedly pro-nuclear premier.

Lower Saxony state politicians are demanding a parliamentary inquiry. Especially Greens, Social Democrats and The Left (Die Linke) condemn the handling of nuclear waste as irresponsible.

People have been protesting since Asse II began operating as a trial repository in 1967. Since public discussion began last year about a concept to close it down by flooding it completely the alarm signals have got clearer. The old

potash mine is not only seen as in danger of collapsing, it has also now emerged that the brine that occurs in all salt rock has become radioactively polluted in an as yet unknown procedure. The contamination is higher than permitted maximums. "When the brine comes into contact with the nuclear waste any number of chemical reactions can occur," warns Rolf Bertram, professor emeritus for physical chemistry. Many local residents and nuclear opponents fear that the contaminated brine will get into drinking water supplies.

It appears that the operator of the mine dump, the Helmholtz-Zentrum in Munich, has carried out works in it without a permit. The inquiry is to establish whether authorities also made mistakes.

Nuclear opponents throughout Germany feel vindicated by the Asse II happenings. "Asse II shows yet again that the final repository theme is still unclear," says Alex Burger, spokesman of The Greens in the state of Bavaria. "What's happening in the Asse II can happen at all other locations for final repositories," warns Peter Dickel, spokesman for Arbeitsgemeinschaft Schacht Konrad, a group resisting another planned final nuclear dump in a former iron ore mine in Salzgitter, about 15 kms west of Wolfenbüttel.

Since 1987 the Arbeitsgemeinschaft Schacht Konrad has been trying with litigation, protests and information to stop nuclear waste being put in both Asse II and Schacht Konrad. In 1991 they collected almost 300,000 objections against the Salzgitter dump. Despite this, the old iron ore mine is being made ready as a national final repository for low and medium radioactive waste. Storing is to begin in 2014.

Dickel is disquieted not just by the problems as such, but also by the way they're being responded to: "Ministries and authorities squabble over responsibilities, dangers are played down and, worst of all, important information is not revealed. This is about waste that could damage people, animals and plants for a million years."

"Why are we talking about Asse II, have

we got too much time?" was the rhetorical question that opened a discussion by the group resisting dumping in the Gorleben experimental mine, about 150 kms northeast of Hannover.

"Quite the contrary," answered Gerhard Harder, opening a meeting of the Bürgerinitiative Umweltschutz, "time is running out for us because the moratorium on Gorleben is running out." He meant the government-ordered stop of further exploration of that mine's suitability as a repository. Harder said the meeting was called specifically to address the linkages between Asse II and Gorleben; what was happening in the old potash mine at Wolfenbüttel mustn't be allowed to happen in Gorleben as well. For years Asse II was seen as the prototype for Gorleben, now Asse II opponents are fighting to have the radioactive waste lifted out of it before it's too late.

Every day 12 cubic meters of water are pouring into the pit uncontrollably. The pit is in danger of being submerged. So far the water is being caught in a sump and pumped out. It's now become public knowledge that the water is contaminated with cesium-137, strontium, radium and plutonium. The Helmholtz Zentrum placates, insisting there's no danger to people or the environment, although small amounts of the brine are already being caught at the level where nuclear waste is stored.

Was this dilemma predictable? Prof. Werner Schneider, guest speaker at the Gorleben meeting, said when the potash mine was turned into a nuclear dump in 1967 it was already foreseeable that brine would flow. He mapped the region as a geologist and emphasized that from his scientific perspective there were clear indicators for the precarious situation: the sinkholes (or dolines in geology-talk) on the edge of the salt deposit. On one side the deposit lacks a water-impervious clay layer. The biggest danger for any salt mine is water inflow, Schneider said. Where there is nuclear waste in the shafts or chambers, the brine behaves very aggressively, he said, which raises the obvious suspicion that some of the drums containing it are already corroded. "The

porosity of the overburden rock was known from the outset. That this was ignored in storing nuclear waste is ethically zero."

Engineer Udo Dettmann of the Asse II resistance group aufPASSEn e.V. (a play on words meaning 'watch out') deplored that all disasters were only revealed by incessant research. The Helmholtz Zentrum was also juggling around with the cesium-137 concentration, he said.

The center claims that most of it was below the permitted level of 10,000 Becquerels per kilogram, which meant that the radiation protection rules didn't apply. In actual fact, said Dettmann, at some collection points the concentrations exceed the permitted level by three to eight fold.

From 1967 to 1978 124,494 highly radioactive drums and 1,293 medium active ones were stored in Asse II. A large proportion of the drums were simply tipped in and already damaged by that. Brine has been seeping into the salt deposits since 1988.

The plan is to flood the entire mine with a magnesium protective fluid to prevent the disastrous interaction between the brine and the waste. The Helmholtz Zentrum euphemistically calls this method "wet storage". Flow barriers are to prevent the nuclear waste drums being inundated too quickly. Construction of the first three flow barriers was completed a few months ago.

If the shafts and with them the waste drums are really to be flooded, they'll rust away even faster, in a few decades. Contaminated salt solutions would seep into the ground. Only just recently a study by the government radiation protection agency, BfS, caused furore in the region when it calculated how fast fluids and gases could exit from the mine. Already 150 years from now contaminated gases could escape into the biosphere in a concentration many times greater than the now set maximum levels.

Despite the obvious failure of the Asse II dump, the Helmholtz Zentrum still unashamedly touts it on its website as a research field.

Asse II was to officially remain

a research mine but the political tussles about it did not at any time stop researchers from using the potash mine as a laboratory - for Gorleben. Until recently the operators of Asse II have been emphasizing its pilot function for Gorleben.

Prominent advocates of Gorleben as a final repository, such as mining professor, Klaus Kühn, are still

undeterred in recommending aqueous rock as a final repository medium. Kühn was even still certifying Asse II safe when the brine was already flowing.

Wolfgang Ehmke of the Gorleben opposition told the meeting, "In Gorleben there were brine nests and inexplicable water inflows in the phase of digging the shafts. Geologists

warned of the water flows and the porous overburden rock. (...) The trust in scientific and political honorableness in final repository research is being totally destroyed."

Source: Diet Simon

Contact: AufpASSEn (Watch out)

INDIA: DRAFT AGREEMENT WITH IAEA - THE LEFT WITHDRAWS SUPPORT

Just as the world recognises that the Indo-U.S. nuclear deal may not be accomplished this year and many U.S. policymakers have said the deal is 'dead', Indian Prime Minister Manmohan Singh suddenly doesn't care anymore in gaining support from the Left. Though the formal withdrawal of Left support to the United Progressive Alliance (UPA) might even cause an early national election, Singh trusts to resolve it and to save the deal in gaining support from the middle class.

(675.5883) **Laka Foundation** - The Left withdraw their support for the deal, because Singh refused to clear the vague phrase "corrective measures" in the preamble of the Draft Agreement with the IAEA. In the second week of July he secured an agreement with the Samajwadi Party to back the deal, giving him enough support to retain his majority even as the Left bolted over fears that the pact would infringe on India's sovereignty.

Observers state that Singh never had, and still lacks, a democratic mandate to complete the deal. Last November, the Left agreed to allow the UPA to hold talks with the IAEA secretariat. The UPA-Left joint committee on the deal agreed that the outcome "will be presented to the committee for its consideration before it finalises its findings." However, the government now wants to go to the Board regardless of the findings, because of US pressure and because Singh believes that a strategic alliance with the U.S. will leave a great legacy comparable to the neoliberal economic shift which he executed in 1991.

The Left, the Communist Party of India (Marxist) and its three partners, has issued a statement challenging the government's decision to keep the text of the safeguards agreement negotiated with the International Atomic Energy Agency (IAEA) a "secret." They fear a disconnect between the government's assurances and the actual text.

Therefore the Left has raised five separate queries in which they express their concerns about the agreement that the UPA had not addressed. These were:

1. In case the U.S. or other countries in the NSG renege on fuel supply assurances for imported reactors, will we have the ability to withdraw these reactors from IAEA safeguards?
2. If U.S./NSG countries renege on fuel supply assurances, can we withdraw our indigenous civilian reactors from IAEA safeguards?
3. If we have to bring nuclear fuel from the non-safeguarded part of our nuclear programme for these reactors in case of fuel supply assurances not being fulfilled, will we have the ability to take (the spent fuel) back again?
4. What are the corrective steps that India can take if fuel supplies are interrupted by the U.S./NSG countries?
5. What are the conditions that India will have to fulfil if the corrective steps are to be put into operation?

All these questions are about to clear the vague language the Indian government is using. The vagueness has helped to keep the nuclear deal's critics guessing, thereby blunting one of their main allegations that the nuclear agreement represents a "proliferation risk." Critics argue that "corrective measures" means India reserves the right to withdraw safeguarded facilities from international inspection at some

point in the future and may indeed do so once it has imported enough nuclear fuel to make up its domestic shortfall. The phrase was a condition the Indian negotiators tagged on to the list of fuel supply assurances they said India needed in order to accept the U.S. demand to "place its civilian nuclear facilities under India-specific safeguards in perpetuity and negotiate an appropriate safeguards agreement to this end with the IAEA." The phrase and the last quote is from the preamble, but no concrete corrective measures have been defined.

A blogger who put the India-specific safeguards agreement, IAEA/2008/30 on the internet declares that the word "perpetuity" appears not once in this document. The section on termination of safeguards states that termination "shall be implemented taking into account the provisions of GOV/1621 (20 August 1973)." The Indian critic Sukla Sen has expressed his concerns on this quote on the abolition-caucus listserve: "That is a worrisome clause - it appears to offer a loophole [...]: GOV/1621 is restricted, so I don't actually know what it says. Sources, however, told Nuclear Fuel correspondent Mark Hibbs that GOV/1621 has to do specifically with safeguarding items which are transferred to a state from third parties - a loophole those experts told Hibbs would allow India to interpret the agreement as excluding the 8 indigenous Pressurized Heavy Water Reactors New Delhi offered to place

under safeguards pursuant to the US-India agreement ..."

This is exactly what critics fear. It would mean that India's safeguards obligations on these 8 reactors are voluntary, allowing India to terminate or suspend safeguards on these reactors after removing any imported fuel.

US Democratic presidential candidate Barack Obama recently said he would not seek changes in the nuclear deal with India and hoped it would be finalised by year-end, the weekly Outlook news magazine reported on July 12. "The existing agreement effectively balanced a range of important issues -- from our strategic relationship with India to our non-proliferation concerns to India's energy

needs. [...] A final judgement on the deal negotiated by the Indian and US governments [...] must await the IAEA's approval of a safeguards agreement with India and changes to be agreed by the Nuclear Suppliers Group," Obama was quoted as saying. "At that point, the US Congress will decide whether to approve the agreement. I continue to hope this process can be concluded before the end of the year," Obama said.

The IAEA's governing board has scheduled a special meeting on August 1 to consider the draft agreement laying out terms for the organization to monitor India's civilian nuclear programs. If the board approves the agreement, as Reuters reported it is likely to do, it would complete a key

step toward implementing a U.S.-Indian nuclear trade deal that also promises to enable New Delhi to purchase technology from other nations.

Sources: The News, 7 July 2008 / The Hindu, 10 July 2008 / AFP, 13 July 2008 / Reuters, 15 July 2008
A copy of the India-specific safeguards draft agreement, IAEA/2008/30 (not public yet, not available at the IAEA-site):
http://www.armscontrol.org/pdf/20080709_India_safeguards.pdf

What's perpetuity among friends [discussing Mark Hibbs' findings]
<http://www.armscontrolwonk.com/1261/whats-perpetuity-among-friends>

Contact: WISE India

CONSORTIUM SELECTED FOR SELLAFIELD

The NDA selected a 'preferred bidder' for the management of the UK's enormous Sellafield site. The Nuclear Management Partners consortium will now enter negotiations over the £1.3 billion (US\$2.5 billion) per year contract. The NMP consortium, made up of Washington International Holdings, Amec and Areva, beat three other consortia to the selection. Ian Roxburgh, chief executive of the awarding body, the Nuclear Decommissioning Authority (NDA, the government umbrella body managing the nuclear sites), said all the teams had "surpassed the evaluation threshold." NMP will now enter into what the NDA called a period of contract finalisation, prior to the award of the contract in October. The other bidders will be kept in reserve, NDA said.

(675.5884) WISE Amsterdam - If negotiations go well, NMP will create a 'parent body organization' (PBO) to take on the shares in the 'site license company' (SLC) for Sellafield. The SLC includes used nuclear fuel reprocessing, mixed-oxide (MOX) nuclear fuel production, and waste storage facilities at Sellafield proper, shut down power reactors at the adjacent Windscale and Calder Hall sites as well as the Capenhurst uranium enrichment site and an engineering and design center at Risley.

Managing the numerous facilities and their respective operation or decommissioning amounts to £1.3 billion in work each year. The PBO could also earn a £50 million bonus each year, subject to the level of improved performance and efficiency. The initial contract would run for five years, with possible extensions to a maximum of 17 years and a total revenue of about £22 billion. The Nuclear Decommissioning Authority will

retain ownership of the land and assets, however.

Roxburgh said the selection of a preferred bidder was a "significant step forward" for the NDA's country-wide program of clean-up and decommissioning. Sellafield represents some of the most complex of NDA's tasks as well as some of its top priorities in terms of hazard and revenue for the ultimate owner, the UK government. This site alone represents two thirds of the nuclear liabilities for which the NDA is responsible. The estimated cost of decommissioning all the nuclear sites is £73 billion after a number of estimates were revised upwards. Early July the Public Accounts Committee warned that costs could increase further and that the Department for Business could offer no guarantee that taxpayers would not foot the bill.

The bidding process, which NDA noted was undertaken in accordance with EU

rules, will be reviewed by the NDA in a learning process. Over the next few months, the authority said, it would evaluate the Sellafield process as well as the earlier low-level waste repository process and develop a "way forward" for similar competitions.

The other bidders to be kept in reserve were C2HM Hill, a Fluor-Toshiba partnership, and SBB Nuclear - consisting of Serco, Bechtel and Babcock & Wilcox.

A key advantage of the NMP team is thought to have been the presence of Areva, which operates a number of somewhat similar facilities in France, in particular at La Hague. The company would be seen to have great potential to improve performance at the Sellafield MOX Plant (SMP), which has struggled badly to reach economic rates of production. Commissioning of the BP 473 million plant began in 2001, but the plant currently produces less than three tons of heavy metal product per year,

compared to a design target of 120 tons per year. (See Nuclear monitor, 670, March 27 2008)

Sources: World Nuclear News, 11 July

2008 / Website NDA, Times Online, 10 July 2008

Contact: Cumbrians Opposed to a Radioactive Environment (CORE), 98

Church Street, Barrow in Furness, Cumbria, LA14 2HT, UK.
Tel: +44- (0)1229 833851
Email: info@core.furness.co.uk
Web: http://www.corecumbria.co.uk

NUCLEAR POWER IN SPAIN - CLOSER TO A PHASE-OUT?

Spain has had a moratorium on the construction of new nuclear power plants since 1984. Back then, two years after the starting of a 14-year Socialist era led by Felipe González, the government took such an important step at a time when concerns on the nuclear issue were rising among the voters and problems in the nuclear sector (plants construction, security, waste...) and high costs made it desirable to freeze the nuclear program.

Almost ten years later, in 1991, a further movement was made and five projects, which had not been affected by the moratorium and were in different states of development, were definitely canceled. Chernobyl's catastrophe in 1987 and a fire in Vandellós I power plant (Tarragona) in October 1989 -which never ran again after what it is still considered the worst nuclear accident in Spain- were key for this decision, as well as for the final development of an anti-nuclear consciousness in the Spanish society.

(675.5885) Jovenes Verdes Spain -

Many years have passed since then and, even when the nuclear moratorium is still standing, last governments have taken distance from strong positions against nuclear power.

No doubt there has been some positive actions during the past few years. Legislation and regulations on nuclear energy have improved in an effort to increase the control and the amount of the sanctions in case of irregularities. The José Cabrera nuclear power plant (Guadalajara) -better known as Zorita- was shut down in 2006 after thirty-eight years working. The Nuclear Security Council (CSN), a body created in 1980 to regulate all activities concerning nuclear power, was reformed in 2007 in order to increase its transparency and independence. Finally, the Socialist Party (PSOE)'s electoral program has persistently included their will to progressively phase-out nuclear power. All of it contrasts on one side with the regular persistence of incidents in Spanish nuclear facilities and lack of information about the nuclear activities, which indicates that the level of security and the role of the CSN are still far from being ideal. On the other side, no clear political actions have been taken that indicate that a nuclear-free future might be possible in Spain, despite the promises of the Socialists.

At the moment, Spain counts eight nuclear reactors in operation which first power-up ranges from 1968 to 1987. The lack of capacity to store

the high-radioactive waste for much longer and the proximity of some of the dates marking the end of the exploitation licenses of some sites, draw the frame in which both anti-nuclear and pro-nuclear actors play their cards to push the government to either set a calendar to phase-out or to launch a wide debate that might allow the reactivation of the nuclear program.

The anti-nuclear movement: under constant alert

Voices against nuclear power mostly remain, at least at a national level, in two well-known environmental groups: Greenpeace Spain and Ecologistas en Acción (a federation of grass-roots ecologist groups).

These two organizations are playing an important role giving light to the rather opaque situation of nuclear energy in Spain, including the cover-up of incidents taking place in nuclear-related facilities. Their access to first-hand anonymous information provided by some concerned workers in the sector have allowed them through the years to make public the real gravity and circumstances of some incidents, challenging the transparency and willingness to control and inform of the CSN.

The latest scandal is the accidental radioactive emission at the Asco I plant (Tarragona) which took place in November 2007. It shocked the public in April 2008 after Greenpeace revealed some details of the incident which had

been partially kept secret by the nuclear power plant, making clear that the control mechanisms established by the CSN had failed and forcing the authorities to inspect more than a thousand people (among them the pupils of several schools which had visited the facilities) that might have been at risk.

This kind of active monitoring of the nuclear activities, together with direct actions, some small demonstrations and campaigns, in which many other smaller organizations and collectives play their part, are key to remind the public of the dangers and costs of nuclear power.

At the same time, some work is being done at the political level to push the government. There are however not many politicians who have openly spoken against nuclear power recently. The unclear positions inside the Socialists and the government, the vast amount of problems in which the left-wing party Izquierda Unida is immersed and the weakness of green parties (slightly present at local and regional levels only) might be some of the causes. In any case, some political actions, which include registering official questions to the government and issuing official press releases on the subject, have been taken by ICV (Iniciativa per Catalunya-Les Verts), a catalonian eco-socialist party, and their MP Joan Herrera, the only "green" currently present at the National

Parliament.

Even when the anti-nuclear movement cannot be considered a mass-movement and concentrates many efforts at the local level, it has nevertheless proved successful to the point that according to the last Eurobarometer (June 2008), 57% of citizens in Spain are against nuclear power (a figure which reached up to 80% in other occasions). No wonder why both PSOE's and the conservative Partido Popular (PP)'s governments in the last years have always been aware of the political cost and difficulties that a change in the traditional nuclear policy, like revoking the moratorium, might bring attached.

The pro-nuclear sector: trying to re-open the debate

Having just a 24% on their side (Eurobarometer, June 2008), those who disagree with the idea of a nuclear-free future seem to have a tough barrier in front of them. Nevertheless, the influence of the pro-nuclear sector in the highest decision-making instances and their capacity to increase this percentage should not be underestimated.

In the last years, but specially in the last months, relevant figures from both left and right wings have publicly shown their support to nuclear power. It is the case of Cándido Mendez and José María Fidalgo, secretary generals of the main worker unions in Spain (both close to the Socialists) which expressed that nuclear power should be part of the future energy-policy and that a wide debate on it should be launched. In the same line, Felipe González, more than 20 years after having himself established the moratorium, said that it should be "seriously reconsidered". Right-wing Partido Popular (PP) and its main supporters have clearly supported the future development of the nuclear power industry during the campaign prior to last national elections.

Last but not least, the power industry, one of the main sectors of the Spanish economy, controlled by giant corporations (Endesa, Iberdrola, Unión Fenosa), keep pushing the government to renew the exploitation licenses of the power plants and abolish the moratorium. Nuclear power has proved

extremely profitable for them considering the amount of costs which have always been assumed by the State. At the same time, power plants budget has been reduced to make savings and it is still sometimes cheaper to face fines because of security deficiencies than to stop the energy production, in spite of the new sanctions established in 2007. Relaunching the nuclear program is then one of the objectives of the energy industry, which, according to the chair of Unión Fenosa, Pedro López Jiménez, could be part of a "great national project". He acknowledged however that it would need "agreements between the government and the opposition".

Apart from the well-known arguments the pro-nuclear lobby uses everywhere (best solution against climate change, only way to ensure growing energy demand, safe last-generation technologies etc.), those in favor of an "energetic-mix" which includes nuclear power, have highlighted how pointless it is to hold a moratorium when lacking power is bought from French nuclear power plants. This fair critic shows how policies regarding efficiency, savings and promotion of renewable energies are not still well-developed even in a country with such a high potential as Spain.

Walking the line

So far, the government has tried not to deceive any of the sides of the struggle. Critics from both sides are avoided the best way they can and statements reminding the official position are only made when the situation allows them (like the shut-down of Zorita or the electoral campaign). Every small positive step has counted with the approval of the industry, or at least, has been taken making sure it would cost nothing to the companies. The constant attacks questioning the current moratorium and the industry media campaign to present nuclear power as a clean alternative to fossil fuels (taking advantage of the social concern about climate change) have managed to put it back on the table to the point that after more than four years of Socialist government, clear policies towards a phase-out are still missing.

After the March 2008 elections, the Executive has been partially renewed, but nothing indicates so far that there might be any changes. On one side, the new Minister for Industry has stated, when asked about nuclear power, that Spain should move towards "forms of energy that don't generate waste", adding that "the electoral engagement should be accomplished", but he recently acknowledged as well that the nuclear power issue should be discussed in a global context. On the other hand, president Rodríguez Zapatero said that Spain will adopt the position of the European Union, which does not leave much space to hope. Nevertheless, the government should soon take a very important decision regarding the continuity of the nuclear power plant of Garoña (Burgos), which exploitation license lasts till 2009 and should be dismantled then after 40 years of operation. Endesa and Iberdrola, owners of the plant, have already asked for a renewal of the license for another 10 years. The ecologists push to close the plant and set up a calendar to shut down the rest of facilities. In the meantime, the Nuclear Security Council is writing down an report on which the Ministry of Industry should base its decision.

The future of nuclear power in Spain (and Europe) partially depends on the continuity of Garoña's plant, as it will create a valuable precedent for one of the sides. Even under the high pressures of the industry, government is aware of the position of the majority of the society and, overall, of the tremendous cost that reactivating the nuclear program would mean for the State in the current economic context and considering the problems waste-management include. Sooner or later, the government will have to choose clearly on which side it is. Never before, the chance to assume a phase-out and draw a real horizon for a nuclear-free country was so clear. Will they keep their promise?

Source and contact: International Secretary Hector A. Sanjuán Redondo. Jóvenes Verdes (Young Greens) Spain
Tel: +34 646 44 62 45

Email: internacional@jovenesverdes.org

NUCLEAR POWER PLANTS AREN'T SAVING OUR SEAS

In April, British Energy commissioned the Center for Environment, Fisheries and Aquaculture Science (CEFAS) to carry out an environmental survey of coastal waters near Sizewell, Dungeness, Hinkley Point and Bradwell. These four sites are seen as top of the bill for the British nuclear ambitions. The governmental agency will try to determine the impact of nuclear plants on sea life in the past, and make an estimate of the impact which can be expected if new nuclear plants power stations are built there.

(675.5886) WISE-Amsterdam - The announcement of the commissioned research led The Times to report that "Nuclear plants suck the sea life from British waters". The paper reported about the devastating effect cooling water intake of nuclear power plants has on sea life. "The number of animals killed is colossal," Dr Henderson, an associate lecturer at the University of Oxford and director of the Pisces Conservation environmental consultancy, commented in the paper. "Very small fish get sucked in in very large numbers."

In the article in The Times, it was briefly mentioned that the radiation in the secondary cooling circuit of the nuclear power plant adds even more danger. Dr. Henderson objected to this. According to him, the radiation had no added effect on the survivability of the processed sea life. Thermal power plants - nuclear and conventional - take in enormous amounts of seawater (often more than 30m³s⁻¹). They easily increase the water temperature by

15°C. In summers, sea water is already around 22°C. When heated it will be around 37 °C, well above the lethal temperature for much marine life. Besides the temperature increase, biocides such as chlorine and sudden pressure variations will make the final sea life-kill. If there is radiation present in the secondary cooling system, it is unlikely that it can add more harm next to the devastating process described above.

Dr. Henderson drafted a letter to the editor to the Times concerning the radiation misunderstanding, but he decided to drop the case, in order not to stir things up. Interestingly, British Energy still used his draft letter responding to an article on a fishkeeping website, debunking The Times-article.

According to BE, "the effect of heating the water in this way generates a climate at the water's return in which some species, such as sea bass, thrive". Henderson dismissed this

remark of BE as "utter rubbish". Especially in the summer, sea water is often already too warm to contain enough nutrition or oxygen for sea life. Suggesting that further temperature increase of the effluent has beneficial effects, is simply wrong, he said.

The remaining question is how seawater cooled nuclear power plants relate to conventional thermal power plants concerning sea kill: Dr. Henderson estimated that nuclear power stations use approximately 5-10% more cooling water per megawatt than conventional power stations do.

Sources: The Times, 14 April 2008 July, 2008 / www.powerstationeffects.co.uk -> Site map -> Feature on impingement scope / <http://www.practicalfishkeeping.co.uk/pfk/pages/comment12403/> Phone conversation with Dr. Henderson on 13 July, 2008

Contact: Daniël Meijers at WISE Amsterdam

Holiday? Summercamps!

USA: August 5-11, Louisa County, Central Virginia.

This summer, join NIRS and people of all ages and backgrounds from throughout the Southeast and beyond for the second annual Southeast Convergence for Climate Action. After the resounding success of last year's convergence we are excited to continue the struggle for climate justice in the southeast with an engaging week of workshops, strategizing, and direct action! This year's convergence will be hosted in Virginia where communities are fighting uranium mining, nuclear power, mountaintop removal coal mining, and new (as well as old) coal plants. Once again we will unite to fight the coal industry's stranglehold on our region while rejecting the deadly nuke industry's attempt to position itself as the solution to the climate crisis. The convergence is a place to strengthen our movement, network with new allies, and take action against dirty energy while working to build a sustainable world. Workshops will include: community organizing, direct action 101, debunking false solutions to climate change, blockades, sustainable living systems, media, disaster response, fighting nukes and coal, and much more. The convergence will culminate in an empowering action to show that the southeast is serious about tackling climate change.

For more information check out:

www.climateconvergence.org

Email: risingtide@mountainrebel.net

Turkey: August 9-23, Sinop at the Black Sea

Every year, Ecotopia pays special attention to one issue. Usually this is an issue which is of particular concern to the local Ecotopia organisers. This year, Ecotopia will take place close to a location determined for the

construction of a nuclear power station, and the main theme will be the energy issues. In Turkey, the pros and cons of nuclear energy have been debated for almost 30 years. In 2004, the Turkish government took a sudden turn in the energy policy and made a plan to meet Turkey's increasing energy demand by building 3 to 5 nuclear plants between 2008 and 2012. The reliance on nuclear energy runs huge economic and environmental risks. The construction of nuclear energy plants wastefully consumes public resources: both their construction and dismant at the end of their term are expensive. Not to mention serious risks and problems related to the storage of nuclear waste and possible accidents.

We believe that the energy crisis should be solved by decreasing energy consumption, improving energy efficiency and promoting low-impact energy production. And we would like to focus workshops and activities at Ecotopia on these issues.

Ecotopia is an annual 2 week-long meeting of activist individuals and groups, focusing on issues of environment and social justice. It has been organized by EYFA (European Youth For Action) since 1989, and is hosted by local grassroots environmental organizations. The 2008 Ecotopia will be hosted by Ekolojik Utopiyalar Dernegi.

Ecotopia is a horizontally organized space to adopt a sustainable lifestyle, share skills in workshops or discussions, exchange experiences and ideas, network with new groups, and spread information on social, political and environmental actions.

During the two weeks, the community utilizes methods of low-impact living; from a vegan kitchen, use of alternative power and ecological cleaning products (washing liquid, soaps, toothpaste), to organizing events to benefit the locality (cleaning actions etc.)

For more information check out: www.ecotopiagathering.org

Email: ecotopia@eyfa.org

IN BRIEF

Green light EU for Mochovce. On July 15, the European Commission has given the go-ahead to the Mochovce nuclear project in Slovakia, a nuclear project from the Cold War era that has no modern safety features. According to Greenpeace the Commission's green light is a clear indication that there is something seriously wrong with European nuclear legislation. According to the Greens in European Parliament "It is scandalous that Commissioner Piebalgs has given the green light to resurrect an outdated nuclear project that does not meet international safety standards. 21st century Europe should be no place for pre-Chernobyl 1970s Soviet reactors. The European Commission is putting Italian energy giant Enel's business interests before safety concerns."

The Mochovce blueprint dates back to the 1970s and has never been subject to a full independent public assessment, as is required by the Espoo convention and European legislation. Investors and the Slovak government claim that the original construction permit issued by the communist regime in 1986 remains fully valid despite its gaping safety flaws.

Greenpeace press release & Greens/EFA, Press release, both 15 July 2008

Argentina: On 10 July 2008, two thousand residents of several localities of *Quebrada de Humahuaca* held a protest in Tilcara against uranium exploration permits awarded to Uranio del Sur SA in the Unesco World Heritage area.

www.wise-uranium.org, 12 July 2008

Belene: longer time, higher price. In June Bulgarian authorities finally admitted that the Belene nuclear power plant is delayed significantly and will cost more than contracted with Russian "Atomexportstroy". In an attempt to reject estimations of Georgi Kaschiev, a well-known nuclear expert, that Belene investment costs would grow as much as twice, representatives of NEK (National Electricity Utility) said the price may increase "up to 20% according to the inflation within EU." At the same time they confirmed that a number of important investments are not included in the contract, such as first fuel supply, turbine generators, linkage infrastructure (substations, grid, etc.) as well as the price of capital. NEK didn't say how all these expenditures would influence the overall investment in the power plant. The management of radioactive waste and decommissioning costs are also not included in the calculations of the electricity cost from Belene, officially estimated on 40 Euro/MWh, while Kaschiev's figures are targeting some 90 Euro/MWh.

Later on, in a report during the President's Council on National Security (June 24), the Minister of Economy and Energy admitted that the construction schedule for Belene is already late "by two years", thus moving the connection of Unit 1 to the system by 2015. According to the environmental activists the real delay is already six years from the initial plans to begin operation in December 2009. The physical construction of Belene nuclear power plant has not started yet. Meanwhile the "**NO to Belene NPPI**" Coalition is observing possibilities to put the EC either to the Ombudsman, or to European Court. According to Petko Kovatchev from the coalition, "the Commission is continuously violating its principles for transparency, nuclear safety and environmental protection, thus giving unprecedented political support to a project, that will bring long-lasting problems for all Europe".

Email Petko Kovatchev, Bankwatch, 14 July 2008

U.K.: Still sheep restrictions due to Chernobyl. The United Kingdom's Food Standards Agency has published three reports on the monitoring of sheep affected by the Chernobyl nuclear accident in 1986 - nearly 200,000 sheep in the UK are still covered by movement restriction orders because of radioactive levels above the official safety limit. As a result of recent surveys restrictions on two farms in Scotland were lifted. No restriction orders were lifted in Cumbria and no monitoring was possible in Wales due to an outbreak of foot and mouth. Following the accident in 1986 restriction orders were placed on 8,914 farms and holdings with 4,225,000 sheep. In February 2008 on-going restrictions were: England nine farms 6,600 sheep; Wales 355 farms, 180,000 sheep; Scotland five farms, 9,900 sheep.

N-Base Briefing 576, 2 July 2008

Canada: Pumping started at Cigar Lake. The uranium mine, which should be the biggest in the world when it enters operation, was flooded by a rockfall in October 2006. Groundwater rapidly entered the mine tunnels but was not held back by bulkhead doors as had been planned for such an emergency situation. Personnel evacuated and after some hours the water had completely filled the mine, causing what is likely to be a two-year delay costing around C\$92 million (US\$91m or 57m euro). Cameco announced earlier this year that its operations to isolate the source of the groundwater with a concrete plug had been successful and it had been able to reduce the water level to 100 meters below the surface. The entire mine is 465 meters deep. The company's plans to pump out all the water that fills the mine and inspect the mine afterwards have been approved by the Canadian Nuclear Safety Commission and the Saskatchewan provincial government. After the pumping operation began early July, Cameco should be able to begin work towards equipping the mine with a ladderway, ventilation ducting and power and communication cables. All this infrastructure had previously been in place but was ruined by the flood. Cameco is the operator of the mine and leads the entire project with a stake of 50%. The other stakeholders are Areva Resources Canada (37%), Idemitsu Canada Resources (8%) and Tepco Resources (5%). "2011 at the earliest" remains the estimated start-up date for the 7000 ton per year uranium mine.

WNN, 30 June 2008

U.K.: Public to pay for accident costs. The United Kingdom Government is offering to indemnify private contractors and pay the costs of any accident as a result of operating and decommissioning Sellafield or running the Drigg waste repository. It is not known whether similar arrangements will be made for the companies decommissioning Dounreay or other sites. Under UK liability rules a company has to pay the first £140 million (US\$280m or 175m euro) on the cost of cleaning up after a nuclear accident. However, it has now agreed to drop this requirement and indemnify companies against "claims arising as a result of property damage, damage to human health", the "cost of measures of reinstatement of significantly impaired environment" or "the cost of preventative measures". In addition the companies will be compensated for any loss of income resulting from an accident - even if they were at fault.

The Nuclear Decommissioning Authority is putting out to tender contracts to operate all its sites. The first has been awarded to the Washington Group to run Drigg, but apparently it threatened to withdraw from the contract unless it was given an exemption from liability costs. Already out to tender is the largest contract, to run Sellafield, with the Dounreay tender process still to be started. The Government and NDA are concerned companies will not be interested in the contracts unless the legal position on liability is clear and the companies are exempt from paying any costs after an accident. The Treasury is reported to have approved the move that will be in place for 30 years after any contract expires. The NDA defended its position by saying benefits of getting the contracts agreed "outweigh the small risk that this indemnity may be called upon".

N-Base Briefing 577, 9 July 2008

USA: Congressional investigative report reveals nuclear power plants still rife with fire protection violations as NRC fails to resolve long standing safety issues

The Government Accountability Office (GAO) investigative report issued on June 30, 2008, is critical of NRC handling of long standing fire protection violations of requirements vital to safely shutting down and cooling the reactor in the event of a significant fire. The GAO found that the long standing violations included 1) nuclear power plants reliance on manual actions (turning valves, pulling circuit breakers) by workers dispatched into a burning reactor building to ensure safe shutdown of the reactor rather than maintain control room operations through inspectable passive design features such as qualified fire barriers for electrical circuits, sprinklers systems and minimum electrical cable separation to prevent a single fire from knocking out all the safety systems; 2) worker's use of "interim compensatory measures" (mainly roving fire watches) that have been maintained over many years rather than fixing the fire safety violation that prompted the compensatory action; 3) NRC is unable to resolve old and new issues regarding inoperable and bogus fire barriers that do not protect the electrical circuits needed for the control room to safely shut down and maintain the reactor in the event of fire and; 4) NRC is unable to resolve safety issues and impacts arising out of multiple short circuits and equipment malfunctions as the result of fire damage to unprotected circuits. Compounding these issues, NRC has not maintained a centralized data base on how many exemptions from regulations, manual actions or compensatory actions are in place throughout the industry that might inform the risk from a fire causing a reactor to meltdown.

The GAO investigative report can be found at: http://www.beyondnuclear.org/files/beyondnuclear/fire_gao_06302008.pdf

Beyond nuclear, July 1, 2008

Resource: 'Estimation of Global Inventories of Radioactive Waste and Other Radioactive Materials'. IAEA Technical Documents Series no. 1591, June 2008.

The assessment tries to cover the inventory of all the human produced radioactive material that can be considered to result from both military and civilian applications. This has caused remarkable difficulties since much of the data, particularly relating to military programmes, are not readily available. Consequently the data on the inventory of radioactive material should be considered as order-of-magnitude approximations. This report as a whole should be considered as a first iteration in a continuing process of updating and upgrading.

Available at: http://www-pub.iaea.org/MTCD/publications/PDF/te_1591_web.pdf

Abandoned mines threat to many Nigerians. Radioactive materials in abandoned mining fields in central Nigeria's Plateau state pose a serious health hazard to two million people. Health officials said laboratory analysis of 1,100 abandoned tin and columbite mining fields scattered in five districts around the state showed the presence of radioactive materials that are harmful to human health. There was a boom in coal, tin and columbite mining in the 1960s in Plateau state, with over 1,000 mining fields established in Jos, Barikin-Ladi, Bukur, Bassa and Riyom districts. But after mining activities declined people moved into areas around the abandoned mines, setting up farms and building houses. "Around two million people now live and farm close to the mines, which means they are all at risk from the harmful effects of the radioactive emissions from the mining fields," Plateau environment commissioner Nankim Bagudu told AFP. Bagudu said an estimated 150 billion naira (1.3 billion dollars) would be needed to reclaim the 1,100 mining fields and turn them into recreational parks, resorts and irrigation fields.

State authorities had launched an awareness campaign to warn residents to keep away from the mines and stop using the soil for domestic purposes. "The people living around these mining fields stand the risk of cancer of the skin, lungs and liver as well as eye impairments from prolonged exposure to radioactive mine tailings we discovered in the mines, an official from the Nigerian nuclear research agency told AFP.

AFP, 5 July 2008

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

July 2008: New study (which reviews 103 previous studies and finds nearly all lacking) concludes that nuclear power is not carbon-free, and its carbon emissions, while far lower than all fossil fuels, are higher than renewable sources of energy. Published in Energy Policy, by Benjamin Sovacool, University of Singapore & Virginia Tech.

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, Bankwatch, Diet Simon, Jovenes Verdes Spain, Sortir du nucléaire Switzerland, and Laka Foundation.

Next issue of the Nuclear Monitor (#676) will be mailed out late August, after a well deserved summerbreak.

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: wisemster@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 18
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
Chytalky 24
594 55 Dolni Loucky
Czech Republic
Tel: +420 604 207305
Email: wisebrno@ecp.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

6930 Carroll Avenue, #340
Takoma Park, MD 20912

