# NUCLEAR NONITOR

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

# SELLAFIELD MOX PLANT AXED BY FUKUSHIMA FALLOUT -SAYS NDA

In what came clearly as a surprise to the gathering of Sellafied stakeholders, the closure of the Sellafield MOX Plant (SMP) was officially announced at West Cumbria Site Stakeholder Group (WCSSG) August 3 meeting. The decision had been made at an NDA Board meeting last week on the grounds that the commercially impotent plant no longer 'had customers or finance'.

(732.6161) CORE - In its press statement, the Nuclear Decommissioning Authority (NDA) says the decision was reached following discussions with Japanese utility customers on the impact on the Japanese nuclear industry of the earthquake in March, including potential delays that would effect SMP's projected program. The Board concluded that in order to protect the UK taxpayer from a future financial burden, closing SMP at the earliest practical opportunity was the only reasonable course of action.

CORE's spokesman Martin Forwood said today: "We shed no tears for a white elephant plant that should never have opened in the first place. Had the NDA genuinely wished to save taxpayers money, it should have grasped the many opportunities provided during SMP's sorry commercial lifetime to put it out of its misery. The NDA has effectively passed the buck to Japan do its dirty work for it and take the blame".

The prolonged battles to get SMP built and operating, including legal challenges, had already provided ample warning to Sellafield that the commercial prospects for the plant were less than robust. With the first planning application to the Local Authority made in 1992, SMP finally opened with the introduction of the first plutonium in 2002 and only then after five public consultation exercises stretching between 1997 and 2001. Focusing specifically on the economic business case for the plant, the later consultations raised serious doubts as to where the contracts would come from and whether the 'overly technical and complex plant' could actually produce the goods to customers' rigid specifications.

Built to manufacture 120 tons of MOX fuel per year, and with an operating lifespan of 20 years, SMP produced no fuel whatsoever until its third year of operation and a total of just 13 tons in its 9 years of operation which saw a number of contracts having to be sub-contracted to SMP's arch-rivals in Europe. Despite dire warnings in 2006 and 2007 from Government commissioned consultants Arthur D Little (who had originally provided Government glowing reports of the plant's prospects) that without further investment the plant would never operate as originally planned, the NDA continued to support its operation and in so doing wasted an estimated BP 1.4 billion (US\$ 2.25 bn or 1.6bn euro) of taxpayers money.

A final lifeline was thrown to SMP in 2010 by the NDA involving a prolonged closure for complete refurbishment to be financed at an estimated cost of BP 200 million by Japanese utility customers, with the lead customer for the 'revamped' SMP identified as Chubu Electric's Hamaoka plant. Dubbed in Japan as 'the most dangerous atomic facility in the quake-prone archipelago', Hamaoka was forced to close earlier this year by the Japanese Government's demand for seismic tests and safety improvements. With the postponement of any further





SEPT 9, 2011 | No. 732

# MONITORED THIS ISSUE:

SELLAFIELD MOX PLANT	
FALLOUT -SAYS NDA	1
ANTI-NUCLEAR OPPOSITIO	DN
GROWING IN JORDAN	2
THE AFTERMATH OF	
FUKUSHIMA IN INDIA	3
JAPANESE GROUPS DEMA	ND:
SAY GOODBYE TO NUCLE	AR
POWER"	4
US: COMPLETION OF	
CONSTRUCTION OF 1970's	5
REACTORS	6
IN BRIEFS	8

use of MOX fuel in Hamaoka's reactors, SMP's sole contract and lifeline was lost.

Martin Forwood added: "As widely expected by all but Government and Industry, the 'cast-iron' assurances in the late 1990's from its then owner British Nuclear Fuels that sufficient business would be secured from Japan to warrant the plant's operation were worthless, with SMP failing to secure even one Japanese contract during its operational lifetime. It is ironic that it should be the very customers it was built to serve who have switched off its life support machine".

SMP directly employs around 650 workers and the NDA announcement of its closure has drawn the expected outcry on job losses and prophecies of gloom and doom for Sellafield which historically and routinely accompany the slightest threat, genuine or otherwise, to any of the site's commercial facilities. As compensation, the NDA suggested to the August 3 stakeholder meeting that there was the prospect of a new MOX plant being built and, for their part, the Unions expressed some confidence that the workers could be redeployed elsewhere on site.

SMP's closure has however opened the proverbial can of worms, particularly in respect of a new MOX plant being built. The current rationale behind the NDA's thinking appears to be that as long as Japan's program of MOX use has not completely sunk under the waves of the tsunami and the Fukushima catastrophe, the 13 tons of Japanese plutonium recovered by reprocessing at Sellafield might yet be converted to MOX in the new plant which could also be used to reduce the 110 ton stockpile of UK owned plutonium for use in the UK's new-build reactors. The cost of a new MOX plant has been put at around BP 1.4 billion.

Martin Forwood further commented: "It beggars belief that the NDA appears

hell-bent on repeating its own very recent and taxpayer-costly mistakes on MOX. Whilst they may wish to 'appease the natives' with the prospect of a new plant, there is no evidence whatsoever that sufficient MOX demand worldwide exists or will exist - particularly in the UK where many of the proposed new reactors may never get built. This is pie-in-the sky stuff and they should be concentrating instead on putting the dangerous plutonium stockpile permanently out of harm's way and treat it as a waste by, for example, using SMP and its current workforce to immobilise plutonium in 'low-spec' MOX for disposal".

**Source**: Press release CORE, 4 August 2011

**Contact:** Cumbrians Opposed to a Radioactive Environment. Dry Hall, Broughton Mills, Broughton-In-Furness, Cumbria LA20 6AZ, UK. Tel/Fax: +44 (0)1229 716523 Email: info@corecumbria.co.uk Web: www.corecumbria.co.uk

# ANTI-NUCLEAR OPPOSITION GROWING IN JORDAN

Last December, the Jordan Atomic Energy Commission (JAEC) announced the relocation of the site for the construction of the countries first nuclear reactor from Aqaba to Balaama near Mafraq, some 40 kilometers northeast of the capital, due to "lower construction costs". As weeks and months have passed since the announcement the prevailing sense of surprise among local residents has gradually turned into resistance. In a country with few natural resources and a rising energy bill, opposition is now mounting towards a national nuclear program officials maintain is key to the Kingdom's energy independence.

(732.6162) WISE Amsterdam - From a crowded office supply store in downtown Mafraq, a group of concerned citizens are launching opposition against nuclear power. They are part of a coalition known as Irhamouna (Have mercy on us or give us a break), a loose grouping of (sometimes) prominent Mafraq citizens, geologists, lawyers and youth activists who have mobilised against the planned nuclear reactor.

Although the movement is only four months old, it boasts 2,500 active members and over 10,000 followers on Facebook as it attempts to raise awareness on the potential pitfalls of nuclear energy by holding protests and hosting in between a series of door-todoor information sessions with friends and neighbors.

On August 16, scores of environment activists and Mafraq residents held a

sit-in in front of Mafraq Municipality to protest against the nuclear program. Some protesters dressed in yellow shirts to express their rejection of atomic power, while others who wore white overalls and gas masks lay down on the ground to highlight the risk of nuclear pollution on humans. The demonstration, organized by Greenpeace Jordan and Irhamouna marked the growing national movement against nuclear power and was the fifth anti-nuclear protest since May. It came as energy officials in Amman vet technology vendors for the country's first nuclear reactor. "We sent a peaceful message today to the Prime Ministry, the Royal Court and the Ministry of Energy that we do not want a nuclear reactor," Irhamouna coordinator and Mafraq resident Nidal Hassan told The Jordan Times in a telephone interview.

Environmentalist and activist Basel

Burgan is another one of several Jordanians spearheading efforts to unplug the nuclear program before the first reactor revs up in 2020. "When we talk about environment, when we talk about health, when we talk about cost, it just doesn't make sense," Burgan said.

Jordanian nuclear officials and the anti-nuclear camp are split over the potential impact of the nuclear program on the budget and the benefits for the local economy. AEC quotes a US\$4 to US\$5 billion price tag for the construction of a Generation III nuclear reactor, a cost that would be spread out over a seven- to eight-year period. Anti-nuclear activists claim that according to 2011 prices a reactor would cost the Kingdom closer to US\$10 billion, nearly twice the national budget, accusing JAEC of glossing over "hidden costs" such as security, water pumping and a required upgrade of the national grid. Energy

officials point to a moderate payback period with the plant expected to generate some US\$450 million in electricity sales in a year, a number that is to reach US\$973 million if the Kingdom is to go ahead with plans to construct a second reactor within a few years of the first. The anti-nuclear camp claims that the majority of the power plant's staff will be foreigners, pointing to the UAE nuclear program as an example, where even Dubai's nuclear regulatory commission has been imported from abroad.

Environmentalists claim that the focus on the Kingdom's nuclear program has come at the expense of the development of alternative energy sources such as solar and wind power. "Eighty-five per cent of Jordan is desert; we have 355 days of sunshine a year. We would be crazy not to invest in solar," Irhamouna activist Fares Shdeifat said.

With Jordan on pace to commission, the country's first reactor by 2020, activists are drawing a line in the sand, with a host of activities and protests planned for after the holy month of Ramadan, and, they say, years to follow.

According to Toukan, the ministry is set to launch its own information campaign later this year to dispel rumors and misinformation surrounding the nuclear program, with a series of awareness sessions which are to culminate with a visit by IAEA chief Yukiya Amano to Amman. As JAEC goes forward with selecting technologies for the reactor this fall from among Canadian, Russian and Japanese-French models (the 'winner' will be announced in November, according to the Jordan Energy Ministry), activists say energy officials can expect a less than hospitable welcome in Mafraq. "It seems the government will not give up and neither will we," Hassan said. "Because the last thing we want is for our children to grow up and ask us 'Why didn't you stop this when you could?"

**Sources:** Jordan Times, 1 & 17 August 2011 / Jerusalem Post, 14 August 2011

# THE AFTERMATH OF FUKUSHIMA IN INDIA

The three-in-one disaster at Fukushima has stirred human consciousness all over the world. On the one hand, it has prompted Germany's decision of phasing out nuclear energy by the year 2022, Italians' overwhelming vote against nuclear power in a national referendum, and some 20,000 Swiss citizens' rallying against nuclear power and so forth. Even the Chinese government put all its nuclear activities on hold and decided to do stocktaking before proceeding any further

(732.6163) WISE India - On the other hand, Fukushima has evoked a totally different and horrendous response from other quarters. India is a case in point. The chief of Department of Atomic Energy (DAE) tried to explain away Fukushima accidents as "chemical explosions" and the chief of Nuclear Power Corporation of India Ltd. (NPCIL) claimed that the Indian nuclear power plants were all away from earthquake-prone zones. The Prime Minister of India tried to reassure the nation that the Indian nuclear power plants were all safe. He did not elaborate on what made him feel so confident or what steps he had taken to evaluate the safety standards and procedures at the Indian nuclear power plants.

This kind of lame excuses and false promises only made the people of India wearier about the whole nuclear power program. To add insult to injury, Manmohan Singh cabinet chose April 26, 2011, the 25th anniversary of Chernobyl Day, to issue an official statement that they would persist with the nuclear power program. This slap on the face of every Indian on a sensitive day betrayed the real values and loyalties of the government.

The Congress party-ruled states such as Maharashtra and Andhra Pradesh where French and American nuclear power parks are coming up are working overtime to facilitate these anti-people but pro-corporate projects. But the chief minister Mamta Banerjee of West Bengal asked the central government to cancel the Haripur project with Russian collaboration and pronounced that they would not welcome any nuclear power plant anywhere in her state.

In Tamil Nadu, however, all the political parties tend to see the nuclear power project as a developmental project and have never raised their voice against the Koodankulam or Kalpakkam or the Neutrino project coming up in Theni district. The People's Movement Against Nuclear Energy has been protesting against the Koodankulam project from the very beginning. Although we enjoy much support and sympathy in coastal villages where people live in harmony with Nature and will be the first victims of any nuclear calamity, people in the interior areas and the middle class have been generally indifferent. But watching Fukushima plants explode and the Japanese citizens flee the triple-tragedy on their TV screens, our people realize the intensity of the danger we are facing.

When the Koodankulam authorities gear up to start the first unit of 1,000 MW plant within a few months of Fukushima, the local people do take offense. When the former tries to conduct a safety drill, the local people get alert and angry. Safety instructions ask them to cover their noses and mouths and to enter the nearest building and close the doors. While the state government claims that 0-5 km area is sterilization zone, the Koodankulam authorities say informally that nobody will be displaced. This kind of confusions and carefully-concealed decisions do not help the people to feel confident.

On August 11, 2011, thousands of people from Koodankulam gathered around the local Catholic Church and demonstrated against the nuclear power plant. A local activist, Advocate Sivasubramanian phoned me and asked me to go to Koodankulam immediately. We organized the demonstration as best as possible and asked people to be careful and nonviolent as we did not want the emerging uprising to be crushed by the state power. The crowd of thousands of people was very cooperative and responsible although the presence of several drunkards, police informers, friends of vested interests and the evergrowing strength of police was a cause to worry.

As this demo was going on in Koodankulam, we received a message that people in the neighboring fishing village, Idinthakarai were ringing the bell in their church and gathering around the parish priest's house. We were invited to go and talk to them. We arranged a group of young people to lead a hunger strike at Koodankulam, and a few of us rushed to that fishing village and held a discussion. People took decisions such as boycotting fishing, keeping children away from schools, a complete shut down of shops and facilities, hoisting black flags in front of the houses, returning the government ration cards (which serve as important Identity card) and passing a resolution at the Village Council on the Independence Day (August 15) against the Koodankulam plant.

We held a planning meeting at Nagercoil on August 13 and decided that our only demand was closing down the Koodankulam plants and that we would avoid processions and marches that carry a good degree of vulnerability and stick to nonviolent hunger strikes.

On August 14, we visited the villages of

Koothankuli, Koodankulam and Idinthakarai and conducted planning meetings. On the Independence Day (August 15) the Village Councils of Koodankulam, Vijayapathi, Koothankuli and Levingipuram passed resolutions to close down the Koodankulam nuclear power plant. On August 16, more than 10,000 people gathered for the hunger strike and we also formed an administrative committee, finance committee, and legal cell to lead the struggle.

On August 17, we started our threeday hunger strike at Koodankulam and thousands of men and women gathered for that. Police had denied permission on the 16th midnight but we defied that and went ahead with the strike. We heard that police was planning to break up our peaceful demonstration by force and we contacted the authorities to protest against it. They invited us for talks and requested us to halt all our demos in return for the cancellation of the safety drills. We reached an agreement that we would not hold any massive campaigns until September 7. But on August 27, 2011 the DAE chief announced that they would start the first unit of Koodankulam nuclear power plant in September 2011. Since this nullifies the ongoing dialogue, we convened our administrative committee meeting on August 30 at Idinthakarai and decided to resume our struggle. After all, India is still a democracy and Indian citizens have been guaranteed the rights to life and livelihood by our Constitution.

**Source and contact:** S. P. Udayakumar at WISE India Email: drspudayakumar@yahoo.com

# JAPANESE GROUPS DEMAND: "SAY GOODBYE TO NUCLEAR POWER"

"We will aim to bring about a society that can exist without nuclear power" Japanese Prime minister Kan said on July 13. But on August 26, Kan resigned after 15 turbulent months in office. His departure both as prime minister and as president of the Democratic Party of Japan, follows Diet passage the same day of two key bills he had set as a precondition for his exit: a bill to issue deficit-covering bonds to finance a large portion of the initial fiscal 2011 budget and legislation to promote use of renewable energy.

(732. 6164) WISE Amsterdam - On August 17, Tepco announced the level of radioactive contaminants escaping from damaged reactors at Japan's Fukushima Daiichi nuclear energy complex has dropped in the last month. The company said the monthly rate of contaminant emissions from the plant's No. 1, No. 2 and No. 3 reactors has fallen to 200 million becquerels per hour; the systems were previously leaking five times that amount, Kyodo News reported.

### Water treatment

Japan in July announced it had completed the initial stage of the plant's stabilization. Completing the second phase is expected to require between three months and half a year. A highlevel Japanese official at a press event avoided offering a more specific projection. Bolstering the efficiency of the plant's water treatment equipment is a "major challenge" in the stabilization effort. Huge amounts of water were poured into the plant to prevent overheating, resulting in radiation-tainted liquid pooling in large portions of the site. Recently installed equipment cleanses the water and recycles it for continued cooling efforts. The intent is to cut off the need to pour additional coolant into the plant that could become contaminated and then escape into the outside environment. Operation of the new fluid decontamination mechanism operation has been slowed by numerous technical errors since being activated in June. It has run at an average efficiency of 69 percent following its launch, Tepco indicated.

### **Cesium release**

But meanwhile, Japanese government specialists project that the quantity of radioactive cesium 137 emitted to date from the crippled the Fukushima Daiichi atomic power plant equates to 168 times the amount of material released in the 1945 atomic bombing of Hiroshima, Agence France-Presse reported. Citing the work of nuclear experts, the Tokyo Shimbun reported the quantity of cesium that escaped Fukushima Daiichi was projected to be 15,000 terabecquerels. In comparison, only 89 terabecquerels were emitted by the detonation of the U.S. weapon dropped over Hiroshima near the end of World War II, according

to the newspaper. The Kan administration provided the cesium projection to Japanese lawmakers.

The dropping of the atomic bombs on the cities of Hiroshima and Nagasaki in 1945 caused enormous destruction, brought about by the blast and by the fireball. It also caused massive radiation exposures, mainly neutron and gamma radiation, most of it delivered at the very instant of the explosion. But the fallout in the area of the bombed cities was relatively little, because in both cases the bombs were deliberately detonated high in the air so that the concussive shock wave would do the most damage on the ground. Thus no crater was created by the blast, and most of the fallout was carried high into the atmosphere by the heat of the fireball and the burning of the cities. It became global fallout more than local fallout.

### Rehabilitation

On August 26, the Ministry of Education, Culture, Sports, Science & Technology (MEXT) announced their estimation of the first year doses (starting from the day of the accident), at the 50 representative spots within the 20 km "vigilance (off-limit)" zone in view of the government intention of allowing re-habilitation of the evacuees. According to their measurements, the dose rates are orders of magnitude different within the same zone in Fukushima Prefecture. Thirty five out of 50 locations exceeded the Government guideline of the first year dose of 20 mSv. (one location measured 503 mSv!). Being influenced by these facts, the Government is now saying that there will be some areas where rehabilitation will not be possible for an extended [number of] years, typically several tens of years.

The government estimates that radiation in a contaminated area drops by about 40 percent over two years naturally and it wants to speed up the process by another 10 percent through human effort, according to guidelines for the clean-up unveiled on August 26. "We aim to reduce radiation levels by half over the next two years in affected areas, and by 60 percent over the same period for places used by children," Japan's nuclear crisis minister, Goshi Hosono, told a news conference.

Another key government goal is to bring radiation below 20 millisieverts per year, the threshold level for evacuation, in areas that exceed this. Some places in the evacuation zone have levels that far surpass this. "Ultimately we want to achieve this goal in a shorter period. Technology is continuing to advance and with enough government funding and effort it can be done," Hosono said.

The total area in need of cleanup could be 1,000 to 4,000 square kilometers, about 0.3 to 1 percent of Japan's total land area, and cost several trillion yen to more than 10 trillion yen (US\$130 billion), experts say. One major problem that the government faces is that the removal of farmland topsoil could ruin fertile agricultural areas. The government said it will take full responsibility for the soil and debris removed in the cleanup, but that as yet it does not have a permanent solution for storing the radioactive material and that they would have to be kept within local communities for the time being. According to Hosono "Fukushima prefecture will not become the final

place of treatment for the debris."

Four days later, on August 30, the results of first comprehensive survey of soil contamination of 2,200 locations within a 100-km radius of the plant have been made public. In the 100km radius 33 locations had cesium-137 in excess of 1.48 million becquerels per square meter, the level set by the Soviet Union for forced resettlement after the 1986 Chernobyl disaster. Another 132 locations had combined amount of cesium 137/134 over 555,000 becquerels per square meter, the level at which the Soviet authorities called for voluntary evacuation and imposed a ban on farming. Cesium 137 has a half life of 30 years, meaning that its radioactive emissions will decline only by half after 30 years and affect the environment over several

# Tokyo, Sept. 19: "Goodbye to Nuclear Power Plants" Rally!

We, a large coalition of Japanese NGOs, are taking action for a "peaceful and sustainable society", reconsidering our lifestyles that exploit nature and waste limitless energy, and focusing on natural energy. For that purpose, we set the following goals: 1. Cancellation of construction plans for new nuclear power plants

 Planned termination of existing nuclear power plants, including the Hamaoka nuclear power plant.
Abolition of "Monju" and nuclear reprocessing plants which use plutonium, the most dangerous radioactive material.

We will achieve these goals in order to save our own lives, and fulfill our responsibilities to the future children. We will hold the "Goodbye to Nuclear Power Plants" rally at the Meiji Park in Tokyo, Japan, on 19 September. In many countries all over the world that weekend demonstrations and other activities will take place against nuclear power and in support of the demands of the Japanese groups.

Furthermore, there is a '10 Million Signature Campaign to say Goodbye to Nuclear Power Plants' with a petition for the "Realization of Denuclearization and a Society Focused on Natural Energy". Please visit http://sayonara-nukes.org/ english/ for more information and for signing the petition.

> generations. Cesium 134 is considered somewhat less of a long-term problem because it has a half-life of two years.

### Separating regulation from promotion

Also in August the Japanese cabinet decided to transfer the country's nuclear safety agency from the trade ministry, where it nestled in a department also dedicated to the expansion of nuclear power, to the environment ministry, where, at least in theory, there is some chance that its operations will not be subverted or manipulated by Japanese energy firms. After nearly half a century of producing nuclear power, Japan has finally separated regulation from promotion, but the move may well have come too late to restore public trust. The impulse to minimize the inherent risks of nuclear power, the tendency to conceal or downplay accidents, the assertion that each succeeding generation of plants is foolproof and super safe, and the presumption, so often proved wrong by events, that every contingency has been provided for, all these have been evident again and again. In contrast, The Netherlands changed nuclear monitoring structures over the past year.

> The regulation agency is now part of the ministry most promoting nuclear power and responsible for licensing.

### **Nuclear exports**

It looked like the Japanese government resumed its joint efforts with industry to export nuclear power plants, despite effectively halting reactor construction at home following the accident at the Fukushima nuclear power plant. Critics said the government is using a double standard--reducing the number of nuclear power plants at home and promoting exports. Facing difficulties in building reactors in Japan, reactor manufacturers-Toshiba Corp., Hitachi Ltd. and Mitsubishi Heavy Industries Ltd.--are renewing their emphasis on exports.

In mid-July, Hitachi and General Electric Co. won preferential negotiating rights for a nuclear power plant in Lithuania, edging out Westinghouse Co., a Toshiba unit, after Hitachi President Hiroaki Nakanishi traveled to the country for sales promotion. Industry officials said emerging economies have strong expectations on nuclear power generation to meet their growing demand for electricity. Among emerging

economies, only Indonesia and Thailand have frozen plans to build nuclear power plants.

According to the Asahi newspaper, a senior official at a manufacturer said the government should take a greater initiative in promoting exports of nuclear power plants. "Winning projects in large

countries, unlike Lithuania, requires government-to-government negotiations," the official said. "The government and industry need to work together closely."

Electric power companies, which provide support to plant operations, are an indispensable partner to reactor manufacturers in winning overseas projects. Emerging economies require not only plant construction but also operation, maintenance and fuel supply as part of a contract. So Tepco's situation has cast a cloud over Toshiba's bid to build a nuclear power plant in Turkey. Tepco was scheduled to provide support in the plant's operations. Turkey is asking Japan to choose a different company. If the selection is delayed, Turkey could start negotiating with other countries, such as France and South Korea.

The Japanese government, meanwhile, is trying to conclude nuclear energy agreements with a number of countries to establish a legal framework for exporting nuclear power plants. The Democratic Party of Japan-led government has signed agreements with four countries -Russia, Vietnam, South Korea and Jordan- over 18 months after it took power and is seeking Diet approval. The government has also entered negotiations with five other countries.

But in a somewhat surprising move, Diet decided to put off approval of four nuclear cooperation agreements. After hearing opinions from four experts on August 24 about an agreement between the Japanese and Jordanian governments, the Foreign Affairs Committee of Japan's Lower House decided to put off approval at a meeting of its executive advisory board the following day. Bilateral nuclear cooperation agreements with Russia, South Korea and Vietnam were also submitted for ratification at the current session of the Diet, but the Foreign Affairs Committee decided on August 31 to postpone the decisions on approval for those later as well.

Former-Prime Minister Naoto Kan played a leading role in signing a nuclear power agreement with Vietnam. But the March 11 disaster completely changed the environment. Kan called for ending dependence on nuclear power generation, halting government-to-government negotiations and Diet deliberations and exports of nuclear power plants were stalled.

### New PM

On August 29, the ruling Democratic Party of Japan (DPJ) picked current finance minister Yoshihiko Noda as the new party head and imminent Japanese premier (the sixth PM in five years), who is likely to seek a prompt restart of safe nuclear reactors to revitalize the country's economic activity. Noda, a fiscal hawk, is expected to prioritize fiscal and debt reforms but also support Japanese utilities to restart reactors where their safety is confirmed to aid the country's rehabilitation efforts in the wake of March's devastating earthquake and tsunami. Noda has said that his country will continue to use nuclear power for the next 40 years in the wake of the Fukushima disaster, taking a swerve away from outgoing Prime Minister Naoto Kan's promise of a non-nuclear future in half that time after the worst international nuclear disaster in 25 years.

Meanwhile, more than a third of Japan's nuclear reactors will have to apply for license extensions within five years or face decommissioning at a time when the industry's safety record is in tatters. Japanese opinion polls show about 70 percent of the public wants to reduce reliance on nuclear power.

Sources: Atoms in Japan, JAIF 5 September 2011 / Bellona, 31 August 2011 / Nikkei, 30 August 2011 / Argus media, 29 August 2011 / Gordon Edwards, 29 August 2011 / Reuters, 26 August 2011 / Japan Times, 26 August 2011 / NTI Global Security Newswire, 25 & 18 August, 2011 / Asahi, 23 August 2011 / The Guardian, 16 August 2011 Contact: Citizens' Nuclear Information Center (CNIC). Akebonobashi Co-op 2F-B, 8-5 Sumiyoshi-cho, Shinjuku-ku, Tokyo, 162-0065, Japan Tel: +81-3-3357-3800 Email: cnic@nifty.jp http://cnic.jp/english/

# US: COMPLETION OF CONSTRUCTION OF 1970's REACTORS

On August 18, the US Tennessee Valley Authority (TVA) Board of Directors voted unanimously to approve the completion of construction of the Bellefonte Unit 1. To finance construction, the Watts Bar 2 reactor (also under construction) will be completed and sold, and then be leased back to TVA. Construction on Bellefonte would not begin until after fuel loading at Watts Bar 2 is complete (not before 2013). Currently TVA has a debt of 24 billion USdollars.

(732.6165) Laka Foundation - Construction of the two-unit Bellefonte nuclear plant began in 1974 (exactly the same year as Busher in Iran), but work was suspended in 1988 in response to declining demand. Unit 1 was the furthest along, considered about 90% complete when work halted in 1988. Today it is considered about 55% complete due to the transfer or sale of many components and the need to upgrade or replace others. Completion of the Bellefonte Unit 1 reactor is expected to cost another US\$4.9 billion, which is in addition to the estimated US\$1.9 billion in value already existing at the plant. Unit 1 should be in operation by 2020. TVA obtained its construction permit for the plant in the early '70s and that permit is still active today. But TVA must get approval from the Nuclear Regulatory Commission for an operating permit before starting up the plant. A "future decision" on the potential completion of Bellefonte 2 will not come until at least mid-way through work on unit 1.

From 1992 to 2002, the TVA considered various proposals for Bellefonte, including completion as a combined-cycle

natural gas plant, a coal gasification plant, a tritium production plant for the Department of Energy's nuclear weapons program, or a nuclear plant partnered with a private investor. In 2009 the NRC granted the TVA's request to reinstate Bellefonte's original construction permits so the TVA could evaluate the engineering and economic feasibility of completing Units 1 and 2.

The TVA decided to complete construction of the Watts Bar 2 project in August 2007 to help meet its growing demand for power (expected completion costs US\$2.5 billion). The 1,180-MW Unit 2 will be the first new reactor to achieve commercial operations in the USA since Watts Bar 1 was completed in 1996. According to the World Nuclear Association "reactor details page" of Watt Bar 2, construction started on January 12, 1972. Remember 1972? In that year, as part of US-president Nixon's re-election effort, a massive campaign of political spying and 'dirty tricks' was initiated against Democrats, leading to the Watergate break-in to plant bugs inside the offices of the Democratic National Committee. Later that year, in November, Nixon won the presidential elections: McGovern lost. Bangladesh won independence from Pakistan and was recognized by the United Nations in 1972 and the German writer Heinrich Böll won the Nobel Prize for Literature. That long ago.

Well, if we are into history: When the Tennessee Valley Authority was established in 1933, at the height of the great depression, it rapidly became one of the controversial instruments of President Franklin D. Roosevelt's New Deal. Designed, in Roosevelt's own words, for the "reclamation of land and human beings", the creation of TVA was a unique federal attempt to attack the grinding poverty of an entire region "by developing and conserving" its natural resources.

In the nineteenseventees TVA had the countries' most ambitious nuclear power program: the construction of 17 reactors before mid 1980's. But already on August 25, 1982, the Board of Directors decided to cancel four units (Phipps Bend 1 & 2 and Hartsville B1 & B2) under construction and in the following 3 years four more units followed. Original start-up date of the Watts Bar reactors was 1977.

On December 12, 1994, TVA announced it would halt work on three of the last four nuclear power stations under construction in the United States: Bellefonte Units 1 and 2 and Watts Bar 2: leaving only Watts Bar 1 to be finished. (as said, it was the last reactor finished in the US –1996)

According to an editorial in the Dec. 13 edition International Herald Tribune the decision "is the symbolic death notice for the current generation of reactors in the US". The article in the WISE Nuclear Monitor devoted to this ended with the warning: "Although the end of the first generation reactors is welcome news, folks should be reminded that the US industry is already seeking federal certification for the next generation". While history may repeat itself, it is not always obvious in which way.....

### No zombies allowed...

TVA had a message for opponents of its Bellefonte Nuclear Plant at the Board of Directors meeting on August 18: No costumes. A month after zombiecostumed protesters paraded in Chattanooga to oppose TVA's plans to revive what they described as a "corpse of a power plant" in northeast Alabama, the nation's largest public utility installed a new ban on costumes at its board meeting on August 18. A TVA spokesman said the no-costume rule was intended to avoid any "disruption" at the meeting in Knoxville.

Despite the warning, several protestors turned up: one man was dressed as "corporate zombie," another as Santa Claus and yet another as Ben Franklin. Even as the protestors claimed a First Amendment right violation, security would not let them enter the meeting.

Thirty-nine years after the first start of construction, in early August 2011, TVA has announced that construction of the US\$2.5 billion Watts Bar 2 nuclear reactor is even behind the 2007 schedule and the project will not meet its sixty month timetable. The 1,180 MW Bar 2 nuclear reactor was expected (in 2007) to be operational sometime in late 2012, but the project is now expected to wrap up in early 2013 instead. The TVA's Chief Operating Officer Bill McCollum said that the project's schedule is being

revised as a result of construction delays as well as lost time due to licensing delays.

Kim Greene, TVA group president of strategy and external relations, said that the utility expects to raise up to US\$2.5 billion on the sale of the "new" Watts Bar reactor, which would then be leased back to TVA. "There have been sale/ lease-backs of nuclear units in the past, and I do believe the closer we are to completion of construction, the easier it will be [to sell the reactor]," she said. "At this point, we have indications from the market that there would be an appropriate amount of interest in the Watts Bar

Unit 2 facility."

So, on August 18 the TVA Board of Directors voted unanimously to approve the completion of construction of the Bellefonte Unit 1. But even with that approval, TVA officials say construction on the reactor would not resume for at least two years because of the planning and regulatory approval process that will still have to take place.

In fact, the board members amended the resolution to say that construction on Bellefonte would not begin until after the fuel loading at Watts Bar 2 is complete. Which is projected to finish up by December of 2012. After that, TVA would issue a 120-day notice of plans to begin construction at Bellefonte.

Sources: www.timesfreepress.com, 24 August 2011 / www.PowerMag.com, 24 August 2011 / www.Wbir.com, 16 August 2011 / www.constructiondigital. com, 9 August 2011 / WNA Reactor Details / WISE News Communique 424, 19 December 1994 / Int. Herald Tribune, 18 August 1985 / Atomic Energy Clearing House, 6 September 1982 / Nature, 26 August 1976 Contact: NIRS

### Quote of the month:

"Nuclear power is capital intensive, lives on subsidies, thrives on false hopes and dies in debt."

Andrew McKillop, Former chief policy analyst, Division A Policy, DG XVII Energy, European Commission, in: Nuclear power: the economic dirty bomb. 16 August 2011. www.marketoracle.co.uk/Article29928.html

# IN BRIEF

**French Nuclear Authority points to "weaknesses" of the EPR.** The construction of the EPR nuclear reactor being built in Flamanville, has many "weaknesses" that put the "final quality" into doubt. This is the conclusion drawn after a thorough inspection conducted on site in May by the Nuclear Safety Authority (ASN). The report of this "inspection review", highlighted by Le Canard Enchaine on August 24, is posted on the site of the ASN (www.asn.fr). It is a 20 page letter sent by the ASN on June 24 to EDF, the prime contractor for the 1600 megawatt reactor designed by Areva. The inspection has was carried out by fifteen experts, including an observer from the British regulator. The team found deviations from the construction requirements on essential parts of the reactor: the feed of the steam generators, water injection filters, the RIS batteries of the cooling system. "EDF has to make great efforts to show the final quality of the construction of Flamanville 3", judges the ASN, which points out: "inconsistencies between the requirements specified in sub-contracting and the demands mentioned in the preliminary safety report" - that is to say a non-compliance with initial prescriptions. Concerning an essential feature of the steam generators, experts estimate that "the quality of materials taking into account their importance for safety has not been demonstrated and their use in FLA3 is not possible". In two cases, they demand from EDF to "not engage in actions that are difficult to reverse before demonstrating" compliance. **Le Monde (Fr.) 24 August 2011** (translation Jan Haverkamp)

Town produces 321% more energy than it uses. A small Bavarian town in Germany called Wildpoldsried produces 321% more energy than it uses, from renewable and natural sources. By selling the excess energy, Wildpoldsried has eliminated all the towns debt and generates 4.0 million Euro (US\$5.7 million) in annual income. The point they are at now in terms of energy production and independence was reached by starting a plan about fourteen years ago to develop more clean energy sources and green building projects. The town with a population of about 2,500 started work on a huge community initiative involving the construction of nine new buildings and energy sources. The new buildings included a school, community hall and gym, and they employ solar panels, as do 190 private households. Five biogas digesters, nine windmills, three hydroelectric projects, ecological flood control and a natural waste water treatment system were part of the plan for energy independence. It all has worked well, and the town is debt-free. They actually formed several local companies to construct, install and manage their wind turbines, with local residents as investors.

### www.care2.com, 24 August 2011

**Bushehr online after 36 years of construction**. Iran's Bushehr nuclear power plant has been connected to the national grid. It began supplying around 60 MW of its 1000 MW capacity on Saturday 3 September at 11:29pm, the Atomic Energy Organization of Iran (AEOI) said. Construction on Bushehr by German company Siemens KWU started in 1975, but the work was stopped in 1979. Iran signed a deal with Russia in 1995, under which the plant was originally due to be finished in 1999, but the completion of the project was repeatedly delayed. The most recent delay, in February 2011, was caused by the discovery of damaged internals of a coolant pump supplied in the 1970s. To avoid potential consequences of metal debris getting on the fuel assemblies, they were unloaded and washed, while the reactor pressure vessel was cleaned. The fuel was reloaded in April and the plant achieved criticality in May 2011. In August 2011, the Government of Iran invited an International Atomic Energy Agency delegation to visit the country's nuclear facilities, including nuclear power plant that has been built by Russia's Atomstroyexport. According to Iran's nuclear officials, Bushehr power plant will reach 40% capacity during a ceremony that will be held on 12 September 2011. It is expected to reach full capacity in November or December 2011.

### Nuclear Engineering International, 5 September 2011

North Anna shut down after earthquake. The largest earthquake to hit the eastern US in 67 years has raised concerns about the safety of the country's nuclear power plants. The 5.8 magnitude quake's epicenter in Virginia on August 23, was close to the North Anna plant, 130 kilometers southwest of Washington. The plant lost power and automatically halted operations after the quake. While the operator reported no 'major' damage to the facility, three diesel generators were required to kick in and keep the reactors' radioactive cores cool. A fourth diesel unit failed. While nuclear power plants can operate safely on back-up power, failure of generators was a key reason for the disaster at Japan's Fukushima Daiichi plant

A spokesman for the operator said the plant was designed to withstand an earthquake of up to 6.2 in magnitude. But some groups have expressed concern about the narrow margin between the design metrics and the quake's size. 'It was uncomfortably close to design basis,' said Edwin Lyman of the Union of Concerned Scientists, which has pushed for stronger nuclear regulations. 'If Fukushima wasn't a wake-up call, this really needs to be to get the NRC and industry moving to do seismic reviews of all the nuclear power plants in the country.' An article in the Washington Post reports that the earthquake moved dry casks (huge concrete containers holding spent nuclear fuel), weighing between 100 to 115 tons, by as much as four inches (10 centimeters). Twelve other nuclear plants along the Eastern Seaboard declared an "unusual event" following the quake, the lowest of the NRC's emergency classification ratings. North Anna's "alert" status is one step further up on a four-step U.S. emergency scale. North Anna's reactors are among 27 east of the Rockies that the NRC highlighted during a seismic review last year as presenting a potential hazard, due to the amount of ground-shaking they were designed to withstand. Many nuclear experts say plants in the United States were designed with big margins of error built in, but last year's NRC survey found that the risks posed by earthquakes were higher than previously thought.

RTE (Ireland), 24 August 2011 / Reuters, 24 August 2011 / Washington Post, 1 September 2011

**Germany: no need for nuclear reserve capacity.** Germany's grid regulator Bundesnetzagentur (BNetzA) said August 31 that it has decided against keeping one idled nuclear reactor on standby as reserve capacity for the coming two winter seasons to ensure power grid stability after the government permanently closed eight older reactors in the wake of the Fukushima disaster in March. "Our investigations have shown that even in exceptional contingencies the transmission system will remain operational without the dispatch of a reserve nuclear power plant," BNetzA President Matthias Kurth said in a statement.

The government has asked the grid regulator to investigate the need for a nuclear reserve capacity during the winter after transmission system operators in May warned of possible blackouts during extreme winter weather should the eight older reactors remain shut permanently, removing at least 5,000 MW of nuclear capacity from the market. **Platts, 31 August 2011** 

International blockade Olkiluoto, Finland. On August 20, 2011 a blockade of the Olkiluoto nuclear power plant under construction took place for the second time gathering people from several regions of Finland and from other European countries on the streets. One year ago, on August 28, 2010, it was the very first public street blockade of an atomic facility in Finland ever. It had been started with the support of a number of European and Finnish environmental and anti-nuclear groups. The gathering of the Nuclear Heritage Network, an international network of anti-nuclear activists, taking part in March 2010 in Helsinki had initiated the idea of the blockade and developed it together with the variety of Finnish NGOs and groups. The goal was to question the international reputation of Finland as the country of the so-called "renaissance of nuclear power", and to show that even in this country being under strong pressure of the nuclear lobby atomic power has noch support of the citizens.

For Finnish anti-nuclear activists the Olkiluoto Blockade was also an important occassion for meeting each other and exchanging as so far there doesn't exist any other nationwide organizing structures for a common anti-nuclear strategy. In the south as well as in the north strong networks of local initiatives and organizations exist and in some cases they successfully opposed to projects of uranium mining and new nuclear reactors constructions. However, cross connections between those groups and networks are created so far only in mutual big actions like the Olkiluoto Blockade or the anti-nuclear infotour around the Baltic Sea that also took place in 2010.

This year a blockade of about 100 activists from Finland, Sweden, Germany, Russia, France, United Kingdom and Belarus several times stopped the traffic on the access roads to the disputed Olkiluoto nuclear power plant in Finland. Police had announced to prevent the blockade of roads that were supposed to take place for the second time. They forced protesters from the streets again and again towards a bus stop nearby. Nevertheless, the activists succeeded several times to blockade the main access road to the nuclear power plant for some minutes, while an additional access street had been closed for some two hours by a wooden tripod construction with an activist on the top.

### www.greenkids.de

**Donors agree to fund new Chernobyl shelter.** There appears to be enough money (at last after almost 15 years) for a new sarcophagus at the Chernobyl reactor in Ukraine. The Nuclear Safety Account and the Chernobyl Shelter Fund donors agreed to provide the necessary financial resources for the implementation of the Chernobyl projects. The decision was made at the Assembly of Contributors to the Chernobyl Shelter Fund meeting on July 7, 2011, in London. The new construction will help "neutralize any possible future threats to the environment from the Chernobyl nuclear plant in Ukraine".

The needed amount of financial resources for the Shelter Implementation Plan (SIP) funding is EUR 740 mln. On the 25th anniversary of the Chernobyl tragedy on April 26, 2011, a fundraiser was held resulting in donors' obligations of EUR 550 mln. The new decision of the world donors allows for the immediate start of the SIP execution and its completion by 2015. The SIP involves stabilization of the existing sarcophagus and the construction of a New Safe Confinement (NSC) for the damaged nuclear reactor. In 1988 local scientists announced that the life time of the sarcophagus was 20 to 30 years. The Chernobyl Shelter Fund (CSF) was established nearly a decade later in December of 1997 to collect funds for the NSC project. Currently, the European Union, the United States, and Ukraine cooperate to help meet the CSF's objective while the EBRD is entrusted to manage the CSF and provide oversight of the funds disbursement.

The construction of the original Chernobyl sarcophagus began on May 20, 1986 - three weeks after the accident, and lasted for 206 days.

### PRNewswire, 14 July 2011

**PSC shifts risks costs overruns to public.** US: Georgia utility regulators agreed on August 2, to scrap a proposal that would have eaten into Georgia Power's profits should the costs for its nuclear expansion project exceed US\$300 million. The Georgia Public Service Commission unanimously approved the plan after making sure the commissioners could review previously approved project costs if there is a budget increase. Customers would pay for cost overruns in their monthly bills unless the PSC determines the overruns are Georgia Power's fault.

Georgia Power is part of a group of utilities building two nuclear reactors at Plant Vogtle. The utility is responsible for US\$6.1 billion of the estimated US\$14 billion project. The company has been at odds with the PSC's advocacy staff over how to handle potential cost overruns for the project. The advocacy staff wanted to cut into the utility's profits if the costs exceeded US\$300 million over budget. The advocacy staff agreed to drop its plan if Georgia Power allowed regulators to re-examine previously approved parts of the project if there is a budget increase. If regulators determine that Georgia Power's mistake led to the cost overruns, consumers would not have to pay the additional costs.

Consumer advocates have criticized the PSC's move as shifting all of the burden of the project's cost onto Georgia Power customers, who already are paying for the plant's financing costs.

### The Atlanta Journal-Constitution, 2 August 2011

**Walk away from uranium mining.** Footprints for Peace, an international grassroots group that organizes walks, bike rides and runs around the world, invites families and people of all ages, background and cultures to come and support traditional owners in their opposition to uranium mining in Western Australia by taking part in the "Walk away from uranium mining" that began in Wiluna on August 19 and will finish in Perth on October 28. "We will demonstrate that we have the choice to walk away from this costly, toxic industry — which produces radioactive waste and weapons usable material — in favour of renewable energy options." Footprints for Peace are working together with the Western Australian Nuclear Free Alliance (WANFA) to organise this grassroots awareness-raising and action-based campaign. Everyone is welcome to join the walk for a few hours, a day, a few weeks or the whole way. Even if you cannot walk we still require financial assistance, drivers, kitchen crew members, media liaison volunteers, video operators and photographers, musicians, artists, singers and general support for daily events, such as camp set up and pack up, food shopping and water collection. The walkers will cover a distance of 20 to 25 kilometres a day, with a rest day every five days........ The walk's conclusion in Perth will coincide with the Commonwealth Heads of Government Meeting. There we will deliver our well-supported and strong message that it is time to shut down the nuclear industry's plans to expand in Western Australia and the rest of Australia.

For more information please visit: http://nuclearfreefuture.com/

### GreenLeft (Aus.) 23 July 2011

Sellafield: No prosecutions for organ harvesting. Recent correspondence has revealed that no one will be prosecuted over the body hacking scandal carried out by the nuclear industry for over 40 years in collusion with government, hospitals, coroners and doctors.

From 1960 to 1991, body parts were taken without consent from 64 former Sellafield workers and 12 workers from nuclear sites in Springfields, Capenhurst, Dounreay and Aldermaston. The liver was removed in all cases and one or both lungs in all but one incident. Vertebrae, sternum, ribs, lymph nodes, spleen, kidneys and fermur were also stripped in the majority of cases. Brains, tongues, hearts and testes were also taken on the advice of the medical officer at Sellafield.

Correspondence from Cumbria Constabulary has been seen which says that despite the findings of the Redfern Inquiry (into the scandal; see Nuclear Monitor 721, 17 December 2010) that the relationship between the nuclear industry and fellow bodysnatching conspirators was "too close" no one will be prosecuted as it is not "in the public interest".

Extract from a letter sent by 'Special Operations' - Cumbria Constabulary: "the issues you raise which I have listed below;

1. That specific people and institutions have breached the Human Tissue Act and that this should be investigated.

2. That an investigation into whether there was any unlawful corruption of the coronial processes had taken place

3. The stipends made to mortuary attendants are also of particular concern.

This was a Government led review which involved both the Department for Energy and Climate Change and the Ministry of Justice. As such any requirement on the police to investigate identified breaches as outlined above would be made by the Government. No such request has been made". (end quotation Cumbria Constabulary correspondence)

Well, surprise, surprise: No such request is likely to be made.

### http://101-uses-for-a-nuclear-power-station.blogspot.com/2011/07/dodgy-hacking.html

### Floating Nuke Plant Seized in Bankruptcy

A St. Petersburg court seized the 70MW floating nuclear power station under construction at the Baltiisky Zavod shipyards after Rosenergoatom, the division of the Rosatom nuclear monopoly that commissioned it, demanded recognition of its right of ownership to the unfinished vessel. The July 26 court order gave the go-ahead for the seizure on the basis of "significant risk" that Rosenergoatom could lose its investment in the 9.8 billion ruble (\$334 million) vessel if another claimant seized Baltiisky Zavod's assets during bankruptcy proceedings.

The ship yard, which is 88.3 percent owned by former Tuva governor Segei Pugachev's United Industrial Corporation is facing litigation from numerous disgruntled creditors. International Industrial Bank, also known as Mezhprombank, had its operating license revoked when it declared itself bankrupt in November. In January prosecutors launched a criminal case against the bank for intentional bankruptcy.

The dispute is not the first to hit Rosatom's ambitious plans to build a generation of floating nuclear power stations to serve remote coastal communities in Russia's north and Far East. Interfax on Thursday quoted an unidentified source at Rosatom saying the contract could be reassigned to another shipbuilder. If true, it would be the second time a contractor has lost the order from Rosatom, which originally commissioned the Sevmash shipyard to build the controversial floating nuclear plants in 2006. Rosenergoatom tore up that agreement in 2008 and signed a new deal with Baltiisky Zavod in 2009. Baltiisky Zavod is scheduled to finish the first station in 2012, according to the contract. The 70-megawatt plant is destined for Kamchatka.

### Moscow Times, 15 August 2011

### WISE/NIRS NUCLEAR MONITOR

The Nuclear Information & Resource Service was founded in 1978 and is based in Washington, US. The World Information Service on Energy was set up in the same year and houses 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 issues.

The WISE/NIRS 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. The WISE/NIRS Nuclear Monitor can be obtained both on paper and in an email version (pdf format). Old issues are (after two months) available through the WISE Amsterdam homepage: www.antenna.nl/wise.

Receiving the WISE/NIRS Nuclear Monitor

US and Canada based readers should contact NIRS for details of how to receive the Nuclear Monitor (address see page 11). Others receive the Nuclear Monitor through WISE Amsterdam.

For individuals and NGOs we ask a minimum annual donation of 100 Euros (50 Euros for the email version). Institutions and industry should contact us for details of subscription prices.

# **WISE/NIRS** offices and relays

### WISE Amsterdam

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

### NIRS

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

### **NIRS Southeast**

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

### **WISE Argentina**

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

### WISE Austria

c/o Plattform gegen Atomgefahr Roland Egger Landstrasse 31 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@ecn.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 AMSTERDAM/NIRS

ISSN: 1570-4629

Editorial team: Dirk Bannink and Peer de Rijk

With contributions from: Bellona Foundation, CNIC, CORE, WISE India and Laka Foundation

Next issue of the Nuclear Monitor (#733) will be mailed out on Friday September 23, 2011.

The "Elfi Gmachl Foundation for a Nuclear-free Future" / PLAGE-Salzburg supports the Nuclear Monitor financially. See: http://www.plage.cc (not available in

English (yet))

### 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 Tegelviksgatan 40 116 41 Stockholm Sweden Tel: +46 8 84 1490 Fax: +46 8 84 5181 Email: info@folkkampanjen.se Web: www.folkkampanjen.se

### WISE Ukraine

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

### **WISE Uranium**

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



/

# The NUCLEAR MONITOR Nuclear Information and Resource Service/World Information Service on Energy 6930 Carroll Avenue, #340, Takoma Park, MD 20912