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

NUCLEAR INFORMATION & RESOURCE SERVICE
www.nirs.org

MAY 12, 2010 | No. 709

ARGENTINA: COURT HALTS OPEN-PIT URANIUM MINE

An Argentine high court halted the project of a foreign company to mine uranium in an open-pit mine in Quebrada de Humahuaca in the northern part of the country, declared a World Heritage of Humanity site in 2003, according to local press reports. One year ago, on May 7, 2009, 2000 persons held a protest march from Juella to Tilcara against uranium exploration in the Quebrada de Humahuaca area. It was the second demonstration in a year in the aera, because on July 8, 2008, also two thousand residents of several localities demonstrated against the proposed uranium mine.

(709.6046) WISE Amsterdam - After losing their case against the mining exploration permits in the Quebrada de Humahuaca area before the administrative court, the NGO Los Vecinos Autoconvocados de Tilcara filed an appeal with the Superior Court of Justice in San Salvador de Jujuy on May 7, 2009. The decision of the Supreme Court of Jujuy province, handed down in February but made known to the interested parties in April, favored the suit for protection filed by inhabitants and environmentalists of the town of Tilcara, which is near Quebrada de Humahuaca. It denied an April 2009 ruling by a court of appeals favorable to the interests of the mining company Uranios del Sur, and also obliges the company to show that its project would not contaminate the environment.

"The sentence changed the judicial paradigm in bringing environmental law into mining activities," Alicia Chalabe, attorney for the inhabitants of Tilcara, told a Buenos Aires daily. She said that "there are many cases" that have been brought in the Argentine provinces "against the negative influence of mining, but the courts always refer to the Mining Code and give no hearing to environmental law."

The Supreme Court of Jujuy, a province bordering on Bolivia, halted the mining project "until it is shown that there is no possibility or certain danger that the work carried out in the area will cause contamination or environmental damage," according to the court ruling published in the Buenos Aires newspaper.

The court said that "it is the duty of judges" to immediately "make effective the judicial protection of the reserve and of the collective interests" of the villages near the Quebrada de Humahuaca. In that sense, the ruling said that what must be protected is "the fundamental human right to a healthy, uncontaminated environment, doing whatever is necessary" to secure it.

"It is an absurd contradiction to allow further exploitation, such as open-pit mining, in a reserve declared a World Cultural and Natural Heritage of Humanity site" by UNESCO, it said. The court also warned that the title of World Heritage of Humanity "can be revoked" and if that happened "it would surely damage the tourism infrastructure now in place" in the Quebrada de Humahuaca,

MONITORED THIS ISSUE:

a deep, narrow ravine between peaks of the Andes.

Uranios del Sur is a subsidiary of Switzerland-based Uranio AG, the majority shareholder of Canadian mining company Rome Resources Ltd., according to the suit brought by environmentalists and local inhabitants.
Sources: Latin America Herald Tribune, 24 April 2010; WISE Uranium at: www.wise-uranium.org
Contact: WISE Argentina

EUROPEAN SUPPORT FOR NUCLEAR POWER AS A SOLUTION TO CLIMATE CHANGE PLUMMETS

On April 29, the European Commission released its Europeans and Nuclear Safety Eurobarometer report. The report attempts to measure EU citizen's attitudes to nuclear power. It makes for very interesting reading indeed.

(709.6047) Greeenpeace International - In the 2006 report, 62% of EU citizens people thought that nuclear power could help combat climate change. That number has plummeted to 46%. The number of people who answered 'don't know' has risen in France, Spain, Finland, UK, Belgium, Luxemburg, Ireland, Estona, Lithuania, Poland, Czech Republic, Romania, Malta and Cyprus. France, UK and Finland are at the heart of the faltering nuclear 'renaissance'.

• In Bulgaria, Germany, France and Romania the number of people who think nuclear reactors can be run safely has fallen. The number of EU citizens that want to increase nuclear in the energy mix increased from 14% in 2006 to 17% now but 'Europeans still do not consider nuclear energy as an option to tackle the energy supply/use challenges faced by developed societies.'

• EU citizens 'consider that the current share of nuclear energy in the energy mix should be maintained or reduced'. Not, you'll notice, increase.

• 'Lack of security to protect NPPs against terrorist attacks and the disposal and management of radioactive waste remain the major dangers associated with nuclear energy'

• 'Citizens would like to know more about radioactive waste management and environmental monitoring procedures.'

Bear this in mind, however. The report is produced against the background of the European Commission launching the European Nuclear Energy Forum (ENEF), in 2007. It is promoted as 'a platform aiming to promote broad discussion, free of any taboos, on issues of transparency as well as the opportunities and risks of nuclear energy'.

So interested is the nuclear-industry dominated ENEF in 'broad discussion', breaking 'taboos' as well as discussing the 'transparency', 'opportunities' and 'risks' of nuclear power that Friends of the Earth, Greenpeace and Sortir du Nucléaire pulled out of the body 'accusing ENEF of stifling critical voices, ignoring their concerns and riding roughshod over alternative scientific evidence.'
(thanks to www.greenpeace.org)

The full report (6,6 MB) is available at: http://ec.europa.eu/energy/nuclear/safety/doc/2010_eurobarometer_safety.pdf

FLORIDA LEVY REACTORS: MORE DELAYS AND RISING COSTS

Progress Energy has announced that it has postponed major construction activities at the proposed Levy nuclear power plant in Florida until it has received a licence for the plant.
At the same time, the estimated cost for the project has increased by up to US$5 billion to an estimated total of US$22,5 billion for two Westinghouse AP1000 (both 1105 MWe). Remember, actual construction has not even started and a license is now expected not before late 2012.

(709.6048) WISE Amsterdam - The company said that it has delayed work for several reasons, including: the need to reduce capital spending to avoid short term rate increases; a recent downgrading to Progress Energy Florida's credit ratings; a delay in the licensing timeline; the current economic climate; and continued uncertainty about federal and state energy policies, including carbon regulation.

Levy units 1 and 2 - both Westinghouse AP1000 reactor units - were originally expected to begin operating in 2016 and 2017, respectively. However, in May 2009, Progress announced a schedule change for the project after regulators ruled that no excavation may take place ahead of full permission to build. Commercial operation of the two 1105 MWe reactors were pushed back by "a minimum of 20 months."

Rising costs
The company has filed nuclear cost for 2010 and projected costs for 2011 with the Florida Public Service Commission (PSC). These include costs for the proposed Levy plant and an uprate

project at unit 3 of its existing Crystal River plant. For 2011, the company is seeking to recover US$164 million in nuclear costs. If the PSC approves Progress' 2011 nuclear cost estimates as filed, the company estimates the average residential customer would pay US$5.53 per month on a 1000 kilowatt-hour bill (US$4.99 for Levy and 54 cents for Crystal River) beginning with January 2011 bills. That is 21% lower than the US$6.99 per month customers currently pay (US$6.78 for Levy and 21 cents for Crystal River).

Meanwhile, Progress said that its current estimate for the cost of the proposed Levy plant is between US$17.2 billion and US$22.5 billion. This cost includes land, transmission lines, fuel and financing costs. The company had previously put the estimated cost as up to US$17.2 billion. Progress says that, according to the current schedule, it expects the US Nuclear Regulatory Commission (NRC) to issue the combined construction and operating licence (COL) for Levy in late 2012.

Source: World Nuclear news, 7 May 2010
Contact: NIRS

CONSULTATION FOR A NEW EURATOM DIRECTIVE ON RADIOACTIVE WASTE

The European Commission has started a consultation for the preparation of a new Euratom Directive on nuclear waste. The goal of this Directive is basically to try to convince the citizens in Europe that the radioactive waste problem is solved, in order to make a large group of those who oppose nuclear power change their mind. We ask your help to prevent this from happening. To be clear: we feel an EU Directive on Nuclear Waste Management could be beneficial - but it should not be used as a tool of nuclear manipulation. We therefore ask you to participate in this consultation.

(709.6049) Greenpeace EU Unit - Over the last weeks it has become increasingly clear that the Commission is wanting to push deep geological storage through the throats of European citizens as the solution to nuclear waste. It furthermore becomes clear that it wants to do so in breakneck speed - this generation needs to 'solve' the problem and wipe all open issues under the carpet (with the waste - deep deep geologically under the carpet - out of sight, out of mind), and that in order to be able to support a new wave of new nuclear power stations that will increase the problems for another three generations more. Another issue that becomes increasingly clear is that the Commission wants to step away from the national responsibility for nuclear waste and open the options for regional dumps. That combined with the current trend to locate possible dump-sites on the location with the lowest public resistance instead of best technical suitability (see Finland, Sweden, Belgium, UK, Czech Republic, Slovenia) is enough reason to raise the alarm.

Here some recent quotes from EU and Euratom Energy Commissioner Guenther Oettinger during a conference on 4 May for the nuclear lobby group Deutches AtomForum in Berlin. Oettinger wanted "concrete steps" toward construction of "modern, operational final" nuclear waste repositories in the EU. He said that Europeans must resolve the nuclear waste disposal issue "in our [countries], in our generation." and that it was unacceptable that no final repository has been built despite decades of work on the issue and that operation of a repository is still decades away.

He announced that the nuclear waste directive will ban export of nuclear waste outside of the EU. The reason is not responsibility, but to ensure European control over final waste management. This is as such good as it would stop Bulgaria hopes on exporting waste to Mayak for indefinite storage or packages with the Russians in which they deliver fuel and take back the waste (although that is currently more strictly forbidden already under Russian law). But... it will NOT stop the exports of Depleted Uranium wastes to Russia, as DU will not be defined as waste but resource (for future fast breeder reactors - remember Monju in Japan was just restarted last week after a repair that took 14 years...). Nor will it stop export of spent nuclear fuel to Mayak or other places outside the EU, because SNF is not defined under nuclear waste.

He furthermore said that the idea of state responsibility would not rule out the possibility that "two or more" EU states with small nuclear programs could construct a common dump, "But please, not outside the EU."

Please, get experts in your country, region, town, get mayors and interested inhabitants from locations that oppose a nuclear waste dump, get other NGOs express their concerns in the consultation.

It would be good if you send us a confirmation that you have filled in the form and a copy of your 'free space' submissions from question 7, so that we can keep an eye on whether the Commission takes your submissions into due account: jan.haverkamp@greenpeace.org

Or send a printed version to:
European Commission
DG ENER/Unit Nuclear energy, transport, decommissioning & waste management
(DDG2.D2) Euroforum building L - 2920
Luxembourg

In that case, also send a copy to:
Jan Haverkamp
Greenpeace EU Unit
Rue Belliard 199
B - 1040 Brussels

CHINA: US-INDIA DEAL JUSTIFICATION FOR SELLING REACTORS TO PAKISTAN

Contrary to guidelines adopted in 1992 by nuclear equipment supplier states in the Nuclear Non-Proliferation Treaty (NPT), China is poised to export two power reactors to Pakistan. In April, Chinese officials said that export of the reactors to Pakistan would be justified in consideration of political developments in South Asia, including the entry into force of the U.S.–India deal and the Nuclear Suppliers Groups exemption for India. This transaction is about to happen at a time when China's increasingly ambitious nuclear energy program is becoming more autonomous.

(709.6050) - Guidelines of the Nuclear Suppliers Group (NSG), representing 46 Non-Proliferation Treaty states, call on parties to the NPT not to supply nuclear equipment to non-nuclear-weapon states without comprehensive IAEA safeguards, including Pakistan. China joined the NSG in 2004.

The United States and other NSG states may object to the pending transaction but they cannot prevent China from exporting the reactors. Senior officials in NSG states friendly to the United States said in April they expect that President Barack Obama will not openly criticize the Chinese export because Washington, in the context of a bilateral security dialogue with Islamabad, may be sensitive to Pakistan's desire for civilian nuclear cooperation in the wake of the sweeping U.S.-India nuclear deal which entered into force in 2008 after considerable arm-twisting of NSG states by the United States, France, and Russia. The United States may also tolerate China's new nuclear deal with Pakistan because Obama wants China's support for United Nations Security Council sanctions against Iran this spring.

After years of bilateral disputes over nonproliferation issues, in 1998 the U.S. Congress allowed a 1985 Sino-U.S. nuclear cooperation agreement to enter into force. After that, U.S. nuclear cooperation with China dramatically increased, culminating in China's 2006 selection of a consortium of companies led by Westinghouse to build four AP1000 power reactors in China. Westinghouse bested bidders from France and Russia in a competition set up by China to determine which of the three would provide the technology blueprint for the future standardized development of China's nuclear power industry.

China chose Westinghouse after it agreed to transfer to China ownership of the technology for the new and untried 1,000-MW reactor. China then awarded contracts to Westinghouse and its partners to build four AP1000s in China. The first two are scheduled to be finished in 2013. Westinghouse scored another coup when in 2008 China selected AP1000 for China's first raft of inland power reactors.

Westinghouse's apparent emergence as first among foreign reactor vendors in China in 2006 was linked to the fortunes of the State Nuclear Power Technology Co. (Snptc). It was set up by China's State Council of Ministers to take charge of technology selection and transfer for China's future nuclear power program, after two decades during which China organized a handful of "boutique" reactor projects in cooperation with Canada, France, Japan, and Russia.

Shortly after China selected Westinghouse to shape its nuclear future, rival Areva made a separate deal with China to build two of its new EPR reactors in Guangdong Province in China's southeast, where French nuclear firms have been engaged since the late 1980s. Unlike Westinghouse, Areva also offered China a suite of fuel cycle technology options, and French officials hoped that a mammoth fuel cycle deal would coax China to continue building the EPR.

In the meantime, the ambitious construction schedule for the U.S.-designed reactors in China has come under heavy pressure. In part out of Chinese concern to keep construction on track, China's nuclear regulator, the National Nuclear Safety Administration (NNSA), will not agree to a proposal, favored by the U.S. Nuclear Regulatory Commission (NRC) and Westinghouse, to modify the design of the containment structure of the AP1000 to provide improved protection against an air crash. In the United States, NRC, after a design review prompted by post-9/11 concernsabout terrorist threats, asked Westinghouse to change the design of a shield building which is part of the containment and to use stronger materials. Westinghouse then urged China to also follow that advice.

China will not do that, Beijing officials said after consultations with Westinghouse and U.S. regulators. "China will build Revision 15," the AP1000 design version originally approved for construction in both the United States and in China, one official said. "It will not approve Revision 17," which incorporates the changes sought by NRC and Westinghouse, he said.

Changing the AP1000 design now would require construction in China to be halted and delayed. China also does not share NRC's view that a terrorist attack on reactors, using a hijacked passenger aircraft as a weapon, is a realistic enough scenario to warrant modifying the design.

The Westinghouse project has encountered other challenges which, so far, have not caused schedule delays. Last year, a key firm which is part of the technology transfer program, China First Heavy Industries (CFHI), failed to produce forgings to the required quality standard for the AP1000. Project executives said CFHI had difficulty handling the demanding steel material

called for in critical components. The schedule was not set back because a Westinghouse partner in Korea, Doosan, had a stock of prototype forgings it had made earlier. The AP1000 has also encountered problems in main coolant pumps, which are of a unique design. Chinese officials said last year that further deployment of the AP1000 would depend on successful demonstration of these pumps, which were a critical feature of the passive cooling system billed as one of the key advantages of this reactor model. According to diplomats there have also been some Chinese bureaucratic delays for certain AP1000 project approvals.

Snptc also wants Westinghouse to increase the power of the reactor to 1,400 MW and then to 1,700 MW, matching the EPR. According to Snptc the 1,400-MW design will be ready for construction by 2013. Many foreign executives are skeptical that schedule will hold up.

Two years ago, China set up a brand new organization to take command of China's energy policy, including nuclear policy, the National Energy Administration (NEA). It is headed by Zhang Guobao, who strongly favors nuclear power development and who is also Vice-Chairman of China's leading planning agency, the National Development and Reform Council (NDRC).

NEA--which is staffed by about 170 experts, including fewer than 20 responsible for nuclear matters--cooperates with NDRC on setting planning targets, but NEA decides which reactors will be built, at what sites, and which state-owned enterprises will get contracts. It, Chinese officials said last month, will favor construction of more CPRs, and will also support China's biggest nuclear SOE, the China National Nuclear Corp. (CNNC) with a total payroll of over 100,000, in exporting more reactors to Pakistan.

China has long assisted Pakistan's nuclear energy program. In 1991 CNNC contracted with the Pakistan Atomic Energy Commission (PAEC) to build Chashma-1, a 325 MW power reactor. It was finished and began operating in 2000.

In 2004, China joined the NSG. China then explained to the NSG that a longstanding framework agreement with Pakistan committed China to provide a second reactor, Chashma-2, more research reactors, plus supply of all the fuel in perpetuity for these units. Chashma-2 construction began in 2005. Chashma-2 is scheduled to be finished in 2011. To keep CNNC at work in Pakistan thereafter, CNNC and PAEC negotiated terms for two 650-MW reactors, Chashma-3 and -4.

In 2006 Pakistan urged China to approve the new project but China was not keen to do so. Pakistan diplomats said then China was holding back because it was not clear that the U.S.-India nuclear cooperation deal would be approved by both governments and by the NSG.

After the U.S.-India deal was approved and India's NSG exemption entered into force without any Chinese objections in 2008, China's policy evolved to support demands by Pakistan for compensation, but China did not expressly advocate awarding Pakistan a broad exemption from NSG trade sanctions matching India's.

NSG country representatives said in late April they expect that the Obama administration will accept a limited amount of additional Chinese nuclear commerce with Pakistan as a price for getting Chinese support on UN Security Council sanctions against Iran in weeks ahead. Some suggested that the United States would also enlist China in this regard to persuade Pakistan to drop its opposition to negotiation of a Fissile Material Cut-Off Treaty, which Pakistan has said it could not accept because the U.S.-India deal had tilted the nuclear balance in South Asia in India's favor.

As long as Pakistan resists outside initiatives which would limit the autonomy of its strategic nuclear program, and because China is believed to be hiding behind Pakistan in avoiding making a firm FMCT commitment in light of China's strategic dilemmas with the United States, it is doubtful whether China would have effective influence on Pakistani decisions to halt fissile material production.

Senior NSG diplomats said this month that they expect that soon after China has completed political and contractual arrangements for the reactor sale to Pakistan, China will inform the NSG of its planned transaction. The matter could then be taken up by the NSG as an agenda item or point of business at a future NSG meeting. So far no NSG meetings are scheduled in 2010 prior to an annual plenary meeting in New Zealand in late June.

The U.S. State Department, in line with its response to a 1998 reactor export from Russia to India, continues to hold that a new reactor export by China to Pakistan would be contrary to both NSG and U.S. policy, but whether the United States would record an objection at the NSG or encourage other NSG states to do so would be up to President Obama following interagency discussions and consultation with foreign governments including Pakistan and China.

Chinese officials said in April that export of the reactors to Pakistan would be justified in consideration of political developments in South Asia, including the entry into force of the U.S.-India deal and the NSG exemption for India.

Source: The GovMonitor.com and Carnegie Endowment For International Peace

OPERATIONS OF NUCLEAR GIANT AREVA PUT LIVES AT RISK IN NIGER

In one of the poorest countries in the world, ranking last in the Human Development Index of the United Nations Development Programme (UNDP), where more than 40% of children are underweight for their age, water and access to improved water sources is scarce and almost three quarters of the population are illiterate, the French nuclear giant AREVA extracts precious -and deadly- natural resources, earning billions for its Fortune 500 corporation, and leaving little behind but centuries of environmental pollution and health risks for the citizens of Niger.

(709.6051) Greenpeace International - Nuclear energy giant AREVA is attempting a new nuclear revolution. The company has activities in over 100 countries throughout the world and aggressively pushes nuclear energy in new markets. Its public relations teams have been working overtime to convince governments, investors and the general public - hungry for clean energy - that nuclear energy is now a safe, clean, and 'green' technology. The devastating effects caused by this alarming misconception are already being felt.

Generating nuclear energy requires fuel that is acquired through the destructive and deadly activity of uranium mining. Uranium mining can have catastrophic effects on nearby communities and the environment for thousands of years to come. There are few places where these harmful effects are felt more distinctly than Niger, Africa.

A landlocked-Saharan country in West Africa, Niger has the lowest human development index on the planet. Arid desert, scarce arable land and intense poverty are hugely problematic - unemployment, minimal education, illiteracy, poor infrastructure and political instability are rife. However, Niger is rich in mineral resources - like uranium.

AREVA established its mining efforts in northern Niger 40 years ago, creating what should have been an economic rescue for a depressed nation. Yet, AREVA's operations have been largely destructive. There are great clouds of dust, caused by detonations and drilling in the mines; mountains of industrial waste and sludge sit in huge piles, exposed to the open air; and the shifting of millions of tonnes of earth and rock could corrupt the groundwater source, which is quickly disappearing due to industrial overuse.

AREVA's negligent mismanagement of the extraction process can cause radioactive substances to be released into the air, seep into the groundwater and contaminate the soil around the mining towns of Arlit and Akokan, all of which permanently damages the environmental ecosystem and can create a multitude of health problems for the local population.

Exposure to radioactivity can cause respiratory problems, birth defects, leukaemia and cancer, to name just a few health impacts. Disease and poor health abound in this region, and death rates linked to respiratory problems are twice that of the rest of the country. Yet AREVA has failed to take responsibility for any impacts. In fact, its company-controlled hospitals have been accused of misdiagnosing cases of cancer as HIV. It claims there has never been a case of cancer attributable to mining in 40 years—what it doesn't say is that the local hospitals do not staff any occupational doctors, making it impossible for someone to be diagnosed with a work-related illness.

The governmental agency in place to monitor or control AREVA's actions is understaffed and underfunded. For years, NGOs and international agencies have attempted to test and assess the dangerous levels of radiation that Niger is being exposed to. A comprehensive, independent assessment of the uranium mining impacts has never taken place.

However, in November 2009, Greenpeace – in collaboration with the French independent laboratory CRIIRAD and the Nigerien NGO network ROTAB - was able to do a brief scientific study of the area, measuring the radioactivity of the water, air and earth around the AREVA mining towns. While not exhaustive, the results were disturbing:

• In 40 years of operation, a total of 270 billion litres of water have been used, contaminating the water and draining the aquifer, which will take millions of years to be replaced.
• In four of the five water samples that Greenpeace collected in the Arlit region, the uranium concentration was above the WHO recommended limit for drinking water. Historical data indicate a gradual increase in uranium concentration over the last 20 years, which can point at the influence of the mining operation. Some of the water samples even contained dissolved radioactive gas radon.
• A radon measurement performed at the police station in Akokan showed a radon concentration in the air three to seven times higher than normal levels in the area.
• Fine (dust) fractions showed an increased radioactivity concentration reaching two or three times higher than the coarse fraction. Increased levels of uranium and decay products in small particles that easily spread as dust would point at increased risks of inhalation or ingestion.
• The concentration of uranium and other radioactive materials in a soil sample collected near the underground mine was found to be about 100 times higher than normal levels in the region, and higher than the international exemption limits.
• On the streets of Akokan, radiation dose rate levels were found to be up to almost 500 times higher than normal background levels. A person spending less than one hour a day at that location would be exposed to more than the maximum allowable annual dose.
• Although AREVA claims no contaminated material gets out of the

mines anymore, Greenpeace found several pieces of radioactive scrap metal on the local market in Arlit, with radiation dose rate reaching up to 50 times more than the normal background levels. Locals use these materials to build their homes.

After Greenpeace published some initial findings at the end of November 2009, AREVA had to take action. Some radioactive spots indicated by Greenpeace in one of the mining villages were cleaned up. However, this limited clean-up does not diminish the need for a comprehensive study so that all areas can be made safe for the community.

Greenpeace is calling for an independent study around the mines and towns of Arlit and Akokan, followed by a thorough clean up and decontamination. Controls must be put in place to ensure that AREVA follows international safety norms in its operations, taking into account the well-being of its workers, the surrounding populations and environment. AREVA must start to act like the responsible company that it claims to be. It must inform its workers and the local community about the risks of uranium mining; many of people in Niger have never heard of radioactivity and do not understand that uranium mining is dangerous.

The people of Arlit and Akokan continue to be surrounded by poisoned air, contaminated soil and polluted water. With each day that passes, Nigeriens are exposed to radiation, illness and poverty – while AREVA makes billions from their natural resources. The Nigerien people deserve to live in a safe, clean and healthy environment, and to share in the profits from the exploitation of their land.

AREVA, with its attempt to create a nuclear renaissance, brings to these communities the threat of losing the most basic elements necessary for life - poisoning their air, water and earth.

This report shows that nuclear power gambles with our lives, health and environment from the very beginning of the nuclear chain - mining for uranium. Dangerous and dirty nuclear power has no role in our sustainable energy future. Greenpeace calls for an energy revolution based on sustainable, cheap and safe renewable energies and energy efficiency.

Source: 'Left in the dust, AREVA's radioactive legacy in the desert towns of Niger', Greenpeace International, May 2010. The report is available at: http://www.greenpeace.org/leftinthedust
Contact: Dr. Rianne Teule, Nuclear campaigner Greenpeace International.
Ottho Heldringstraat 5, 1066 AZ Amsterdam, The Netherlands.
Tel: + 31 20 718 2229
Skype: rianne.teule
Email: rianne.teule@greenpeace.org

USA: GROUPS URGE NRC TO SUSPEND NUCLEAR LICENSING AP1000

On April 21, twelve national and regional environmental organizations called upon U.S. nuclear regulators to launch an investigation into newly identified flaws in Westinghouse's new reactor design. The coalition asked three federal agencies to suspend the AP1000 reactor from licensing and taxpayer loan consideration.

(709.6052) AP1000 Oversight Group – The newly discovered design flaw is tied to documentation of dozens of corrosion holes being found in existing U.S. reactor containments, which recently has raised concern at the Advisory Committee on Reactor Safeguards (ACRS), an independent arm of the U.S. Nuclear Regulatory Commission (NRC). Containment buildings are vital barriers against radiation releases during nuclear accidents.

"The proposed AP1000 containment design is inherently less safe than current reactors," said Arnold Gundersen, former senior vice-president at Nuclear Energy Services PCC. Westinghouse did not analyze the scenario for failure containment warned of by Gundersen. He continued, "Westinghouse has ignored the long history of previous containment failures that indicate there is a high likelihood that the AP1000 containment might be in a failed condition [one or more undetected holes] before an accident begins. The containment leakage problem is exacerbated because the AP1000 is specifically intended to function as a chimney – to pull air up and release it through the top of the building."

Gundersen, a 38-year engineering veteran of the nuclear power industry, produced a 32-page technical report(*1) detailing a history of holes and cracks found at operating nuclear plants. Such corrosion problems, if coupled with the experimental "passive" emergency cooling feature in the AP1000, could accelerate and greatly increase the early release of radiation during an accident. Gundersen's report is backed by engineer and corrosion specialist Rudolf Hauser.
Based on the report, the coalition urged NRC Chairman Gregory Jaczko to suspend license reviews of 14 proposed AP1000 reactors pending the ACRS investigation. They also urged Secretary of Energy Chu and the White House Office of Management and Budget to drop plans for taxpayer funding for the reactor due to increasing risks of projects failing in midstream. In February, the Obama Administration awarded US$8.33 billion (6.5 billion euro) in controversial taxpayer-financed loans (with a public guarantee to cover default) to an AP1000 project at Southern Company's Vogtle plant in Waynesboro, Georgia.

Gundersen's analysis shows that even a three-quarter inch hole in the AP1000 reactor building could, under pressure from a pipe break or other accidents, result in a large and unfiltered radiation release because the building is deliberately intended to move air and heat into the atmosphere during an emergency.

That heat removal – via a gap between an inner metal containment and the outer shield building – is the very feature Westinghouse touts as its principal safety upgrade.

Gundersen explained why the probability of a radiation accident is higher with the AP1000: "Existing data shows that containment system failure occurs with moisture and oxygen." He explained today that for the AP1000 design, leakage from the emergency water tank located above the reactor, testing the tank and/or atmospheric humidity will create, within the gap between liners, "a constant environment of moisture and oxygen that may, in fact, provoke a through-wall containment failure in locations that are difficult or impossible to inspect."

"The Obama Administration should put the brakes on. The consequences of containment failure at Plant Vogtle would be devastating," said Lou Zeller, Science Director for the Blue Ridge Environmental Defense League. "We call upon Energy Secretary Chu and NRC Chairman Jaczko to recall the dangerously flawed AP1000 design before accidents occur and more tax dollars are wasted."

A number of organizations are contesting design and licensing efforts of 14 AP1000s at seven sites across the Southeast. Also, four AP1000s are under construction in China, with more planned there and in India.

At least 77 instances of containment system degradation have occurred at operating US reactors since 1970. That includes eight through-wall holes or cracks in steel containments – two discovered in 2009 – and 60 instances of corrosion that thinned the liner walls below the allowable thickness. In addition to the ACRS, nuclear experts in Europe have recently expressed concern about the likelihood of containment failures at aging plants.

"The AP1000 flaw identified in this report puts into further question the reality of the so-called 'nuclear renaissance.' If Vogtle's proposed new reactors are the flagship of the nuclear industry's claimed resurgence, then everyone needs to pay closer attention because not only are billions of dollars at risk but so is the potential safety of communities living near these proposed new reactors," said Sara Barczak, High Risk Program Director with the Southern Alliance for Clean Energy.

Although Westinghouse and nuclear utilities such as Duke Energy, Progress Energy and others contend that the AP1000 design was "pre-certified" by the NRC in 2006, in the past two years the NRC has identified a daunting list of design problems involving major components and operating systems, resulting in eighteen revisions to the design. Thus, cost estimates for some of the projects have doubled or tripled. Last October the NRC stunned observers by rejecting the reactor building for its potential inability to withstand high winds and the weight of the emergency water tank.

"The so-called nuclear revival is in real trouble, so it's no wonder the industry insists on socializing the risks," said Mary Olson of Nuclear Information and Resource Service. "President Obama and Congress seem clueless to the construction failures occurring in Europe and design problems in the U.S. It's tragic that industry's lobbying money has blinded them into efforts to risk 54 billion public dollars for nuclear plants, while a fraction of that amount could help America move quickly into genuine climate protection through clean, efficient energy."

*1 See www.fairewinds.com/reports for the engineer's report and graphic illustrations of the chimney-effect during an accident.

Source: Press release 'AP1000 Oversight Group', 21 April 2010
Contact: Mary Olson at NIRS
Tel: +1 828 252-8409

ITER: COSTS OVERRUNS, AGAIN

In 2005, after deadlocked discussions, it was agreed to site I International Thermonuclear Experimental Reactor (ITER) at Cadarache, in southern France. The deal involved major concessions to Japan, which had put forward Rokkasho as a preferred site. 1996 was originally supposed to have been the year when the countries involved in the project would decide where the reactor would be located. But costs are skyrocketing. Now, the European Commission is asking member states for another 1400 million euro to cover just two years of extra spending.

(709.6053) WISE Amsterdam - The years 2012 and 2013 are linked to the FP7-Euratom budget that, due to treaty limitations, only runs over five years 2007-2011. (The general research budget runs over seven years.) The EU as host party will contribute around 45% of ITER's estimated construction costs while the rest is equally divided amongst the other six parties: US, China, Japan, India, Russia, South Korea. The European Commission has adopted a Communication to the European Parliament and the Council which concludes that in view of substantial overall cost increases for International Thermonuclear Experimental Reactor (ITER), which have more than doubled the costs for Europe (to around €7.2 billion instead of an initial expected €2.7 billion), a sustainable financial framework should be established. Member States should provide a clear financial commitment throughout the life of the project and a mechanism for dealing with any further overruns should be agreed, subject to an overall cap. In particular, a total of around €1.4 billion is needed to meet the estimated cost increases in the Euratom Community contribution to ITER in 2012 and 2013. This funding should be found either by raising the ceiling in the EU budget or through additional finance directly from the Member States.

EU's commitments to the ITER Agreement is delivered through the European Joint Undertaking for ITER – "Fusion For Energy" (F4E), established as the European Domestic Agency by the Council in March 2007.

The European Union wants to "ensure the success of the project at acceptable cost and with reasonable financial and technical risks". The critical step for the project is now for the international part-

ners in ITER to agree on the project's "Baseline", in other words its scope (specifications of the fusion reactor to be built), the schedule (time table for construction) and the cost. The aim is for this to be agreed at the next meeting of the ITER Council, which includes representatives of all the participating countries, scheduled for mid-June 2010.

How is ITER financed?
During the construction phase Euratom contributes a value of 5/11 (around 45%) of the total, of which 80% is funded from Euratom and 20% from France, the rest being equally divided among the other 6 ITER Parties (1/11 or around ~9% each). During the subsequent operation and deactivation phases, Euratom will contribute 34% of the total costs.

The 2001 cost estimated the total ITER construction at 5.9 billion euro. The Euratom contribution, amounted to 2.7 billion euro (around 45%, 2680 million in 2008 value), corresponding to euro 1 735 million for the components/systems to be provided "in kind", and 945 million euro to be provided "in cash" to the ITER Organization. Each Party has committed to provide the agreed contributions in kind independently of the final cost of procuring and delivering those components.

The F4E current cost estimates for the construction period (cost for Europe only), updated according to the proposed schedule (2007-2020) and presented to the F4E Governing Board in March 2010, amount to 7.2 billion euro: 6.6 billion euro for the contribution to ITER construction and 650 million euro for the F4E running costs and other activities. These estimates would require a Euratom contribution of 5.9 billion euro and 1.3 billion euro of funding from France (all figures in 2008 value).

Euro 2.1 billion (current value) of commitment appropriations from the FP7 Euratom
Budget are needed for the years 2012-2013 in order to commit the procurements needed early in the construction process. Programmed appropriations available in the current Multiannual Financial Framework (346 million euro for 2012 and 344 million euro for 2013 in current value) mean that Euratom is facing an estimated gap on commitment appropriations of about 1.4 billion euro for the years 2012-2013 (550 million euro in 2012 and 850 million euro in 2013).

Sources: European Commission MEMO/10/165, Brussels, 5 May 2010 / See also Nuclear Monitor 698, 27 November 2009: 'Fusion illusions'

EIA MOCHOVCE 3,4 ACCEPTED – GP WILL GO TO COURT

On May 4, Ministry of Environment in Slovakia accepted the Environmental Impact Assessment (EIA) of the Mochovce 3 and 4 nuclear power project. Greenpeace will appeal this decision in court. The two nuclear reactors that are under construction in Mochovce in South Slovakia are of the 1970s VVER 440/213 design and received a building permit in 1986. Among others, this outdated design misses a so called secondary containment and therefore crucial protection against leakage of nuclear material after a large accident as well as against malevolent attack from outside.

(709.6054) Greenpeace - Originally, the Slovak government and Mochovce operator Slovenske Elektrarne, which is 67% owned by the Italian electricity giant ENEL, did not want to do an EIA at all. In 2008 they conceded to pressure from environmental organisations, the neighbouring countries Hungary and Austria as well as the European Commission. An EIA is to build the basis for the environmental justification of the project - it has to assess which impacts the project will have on the environment and whether these impacts can be justified in comparison with alternatives.

The Aarhus Convention, which delivers the legal basis for Environmental Impact Assessments, stipulates that public participation processes like the EIA have to be carried out when all options are still open. Only in that way, conclusions from the EIA procedure can be reflected in the project and only in that way information and opinions on the project can be assessed without pressure of possible loss of investments. Still, SE / ENEL started construction of Mochovce 3,4 in November 2008 in spite of the EIA procedure only just having started. With this, the EIA procedure is in breach with the Slovak law on EIA, the EU Directive on EIAs and the Aarhus Convention.

The EIA report furthermore lacks crucial information to enable the above mentioned justification. SE / ENEL refused to include alternatives, the environmental impacts of fuel production and radioactive wastes, as well as infrastructure projects involved in securing cooling water. Beyond design accidents were not analysed and a part from Hungary that lies within the 30 km emergency zone was conveniently excluded as well.

Greenpeace will appeal the decision of the Ministry of Environment in court. There is already a complaint against the EIA procedure running for the Aarhus Compliance Committee in Geneva, which is expected to come with a verdict before summer. Also the European Commission is investigating the process.

Greenpeace is furthermore already in court because of a conflict of interest of the auditor of the final EIA report. The Ministry of Environment had hired the DECOM consultancy for that task, which is 100% owned by the main construction contractor for Mochovce, VUJE.

The Slovak Parliament changed recently the law on access to information as well as the nuclear law, preventing the public access to any nuclear information -

again in breach with EU Directives and the Aarhus Convention.

Jana Burdova, spokes person of Mochovce, said today that "this is the last step in the EIA process". Unlikely so. The court case will take several months at least. In Bulgaria, a comparible court case took more than four years.

Source and contact: Jan Haverkamp, Greenpeace energy campaigner expert on energy issues in Central Europe.
Tel: +32 2 27419 21
Email: jan.haverkamp@diala.greenpeace.org

IN BRIEF

Germany; coalition lost majority in Bundesrat. After the May 9, elections in North Rhine-Westphalia, Chancellor Angela Merkel's centre-right coalition may have trouble pushing through planned nuclear lifetime extensions. Both Merkel's Christian Democrats (CDU) and their Free Democrat (FDP) allies lost heavily and were left short of their previous state majority, leaving the make-up of the next government unclear.
Merkel, whose coalition has a majority in parliament's Bundestag lower house, could now be blocked on many issues in the Bundesrat upper house, which represents the states. "The nuclear extension has become politically more difficult because the majority in the Bundesrat has been lost," said an analyst at Merck Finck. If the nuclear life extension plan can go ahead without needing approval by the Bundesrat, Merkel's government could in theory ignore the North Rhine-Westphalia result and grant longer life cycles for the reactors. But a panel of legal experts advising the Bundestag said the upper house has to approve any agreement to extend the lifetime of nuclear plants. Opponents to this view say the original nuclear phase-out law did not need Bundesrat approval.
Reuters, 10 May 2010

India: Nuclear liability legislation introduced to parliament. On May 7, the "Civil Liability for Nuclear Damage Bill" was introduced to parliament after the Indian Government deferred the introduction at the last minute at March 15.
The legislation faces tough opposition in the Indian parliament, and it may not pass. Communist parties and the right wing Bharatiya Janata Party (BJP), who could not prevent the government from going ahead with the nuclear agreement in 2008, are vehemently opposing this bill, and together with some other parties have the numerical strength in the parliament to obstruct its passage. "This is an opposition for the sake of opposition," Arundhati Ghose, India's former permanent representative to the United Nations told World Nuclear News, "People who are opposing this bill are those who oppose nuclear energy all together." (So…?) The critics of the bill also allege that the government is putting a low price tag on human lives.
The bill is crucial to the operationalisation of the Indo-US nuclear deal. Critics say Inia is under no obligation to pass the bill, which , in reality, attempts to convert the liability of a foreign supplier to be paid by the Idian taxpayer. (More on the legislation in Nuclear Monitor 706, 26 March 2010; 'India: Profits for foreign investors, risks for taxpayers')
World Nuclear News, 7 May 2010 / Nuclear Monitor 607, 26 March 2010

Lithuania says official, decisive “no” to Belarusian nuclear power plant. The government of Lithuania expressed its official disapproval of a plan pushed by the neighbouring Belarus to build a nuclear power plant in the Belarusian town of Ostrovets, just 55 kilometres away from the Lithuanian capital, Vilnius. The former Soviet republic’s concerns were stated in an official note that was prepared by the Ministry of Environment and will be extended to Minsk, said the Lithuanian news agency DELFI.lt on May 8. Lithuania’s note of concern states, in particular, that Minsk has yet to deliver a comprehensive environmental impact evaluation report on the future NPP and asks that Belarusian officials hold a new hearing in Lithuania where such information may be made available to the public.
Both Lithuania and Belarus, two neighbouring nations that used to be part of the Soviet Union, are parties to the 1991 Convention on Environmental Impact Assessment in a Transboundary Context – or the Espoo Convention, called so because it was signed in the Finnish town of Espoo. Since the new NPP is projected to be built just 23 kilometres off the Belarusian-Lithuanian border, any harmful potential impact it may have will also affect the environment and well-being of the population of Lithuania. A bilateral discussion of the issue is thus a requisite procedure.
Bellona, 9 May 2010

Bulgaria halts nuclear plant project. ‘Prime Minister Boyko Borisov says Bulgaria has put on hold construction of its second nuclear power plant until it finds a new investor and funds to complete the project. "The country has no money for an atomic power plant," the DPA news agency cited Borisov as saying in the May 4 edition of the 24Casa newspaper. "We will build it when investors come." The Russian company Atomstroiexport had originally been commissioned to build the planned 2,000-megawatt Belene nuclear power plant on the Danube River - 180 kilometers (about 112 miles) northeast of the capital Sofia - for 4 billion euros. The contract had been signed between the Russian firm and previous Socialist-led Bulgarian government. When new center-right government swept power in July elections, Borisov's conservative GERB party put the Belene under review due to rising costs. It recently announced a tender for a new consultant after German utility RWE walked out of the project due to funding problems and Sofia decided to redesign it to attract new investors.’
Nuclear Reaction, 5 May 2010

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 AMSTERDAM/NIRS

ISSN: 1570-4629

Editorial team: Dirk Bannink and Peer de Rijk

With contributions from: WISE Amsterdam, Greenpeace International and EU Unit, NIRS and Laka Foundation.

Next issue of the Nuclear Monitor (#710) will be mailed out on June 4, 2010

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/NIRS offices and relays

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

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

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

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

WISE Austria
c/o Plattform gegen Atomgefahr
Roland Egger
Landstrasse 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 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

WISE/NIRS NUCLEAR MONITOR

c/o WISE Amsterdam
PO Box 59636
1040 LC Amsterdam
Netherlands

PRINTED MATTER
MATIERE IMPRIME

TPG Post
Port betaald