

# 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



JANUARY 22, 2008 | No. 682

## MONITORED THIS ISSUE:

### GAS CRISIS ABUSED BY NUCLEAR LOBBY IN SLOVAKIA AND BULGARIA

Shortly before the Russian / Ukrainian gas crises, the Kozloduy municipality had started a new offensive to re-open the closed nuclear reactors of Kozloduy 3 and 4. The mayor of Kozloduy sent a letter to the European and Bulgarian Parliaments. In Standart, a major Bulgarian newspaper, Head of the Kozloduy Exploitation Department Rasho Parvanov reminded on that occasion that "Even if permission is granted, to restart the units will take 6 months". Shortly before Christmas, it became clear that Kozloduy had not made any personnel redundant since the closure of the two blocks in 2006, in the continuing hope for a restart.

(682.5919) **Greenpeace EU Unit** - Then Russia and Ukraine cut off all the gas-flow to Bulgaria. On January 6, Bulgaria's president Georgi Parvanov announced to the BBC that Bulgaria would need to restart Kozloduy 3, 4 and had a right to do so under article 36 of the Bulgarian EU Accession Treaty, that leaves the possibility for emergency measures counter to the Treaty within a three year period after accession - though crucially, with consent of the European Commission. Parvanov said Bulgaria needed to reactivate the Kozloduy unit as "a more critical situation is hardly possible".

In the mean time, Slovakia had fulfilled its obligation in its Accession Treaty and shut down Bohunice V1's second reactor for good on December 31 in the evening. After an assessment by the G7 in 1992, Bulgaria and Slovakia were asked to close all VVER 440/230 reactors because of safety problems that cannot be repaired with upgrades, including the lack of a second containment. This obligation was included in the EU Accession Treaties of both countries.

Possibly inspired by the Bulgarian example, Slovak populist Prime Minister Robert Fico announced on January 10 after an emergency cabinet session that

he wanted the reactor to be restarted to meet the crisis. In a short letter he had alerted the European Commission the day before that the Slovak government was contemplating the move. "Industry has had to severely cut production and provided there is no immediate change in the gas supply, the electricity sector will face a blackout that would bring the whole country to a complete crisis and standstill," Fico wrote in his letter to the Commission.

On the home front an around the clock information campaign from Greenpeace tried to explain to the Slovak population the harsh reality that nuclear electricity could not replace gas in any way. Slovak gas is mainly used for heating purposes, chemical industry and some transport. Less than 6% of Slovakia's electricity needs are covered by gas - virtually all of it peak-load that cannot be replaced by inflexible nuclear capacity. Greenpeace calculated that a restart of Bohunice V1 would bring per day several hundreds of thousands of Euros into the pockets of Slovak state operator JAVYS without addressing any of the gas emergency problems. The Slovak electricity distributors and the grid operator furthermore stated that there was no shortage of electricity, nor to be expected and that possible temporary

<b>GAS CRISIS ABUSED BY NUCLEAR LOBBY IN SLOVAKIA AND BULGARIA</b>	<b>1</b>
<b>URANIUMMINING ISSEUS 2008 REVIEW</b>	<b>2</b>
<b>CLINTON'S INVESTMENT IN URANIUM</b>	<b>10</b>
<b>IN BRIEF</b>	<b>11</b>

shortages could easily be covered with imports.

Also the European Commission was not impressed. On January 14, DG TREN spokes-person Ferran Tarradellas explained to an amused Brussels press corps that re-opening of Bohunice V1 would be illegal because Slovakia's three year emergency clause in the Accession Treaty (article 37, similar to the one in the Bulgarian Treaty) had already expired and that it was unclear to the Commission how nuclear could play a role in meeting a gas emergency. The Commission demanded Slovak Economy Minister Jahnatek to come with written proof instead of oral declarations. That same evening, Prime Minister Fico broke the line of his Economy Minister and announced that the decision would be postponed. Almost a week later, the idea was completely shelved.

On January 8, Bulgaria received support from Members of the European Parliament Ari Vatanen (France / Finland, active member of a Foratom organised nuclear lobby group of MEPs), Jan Zahradil (Czech) and

Vladimir Urutchev (Bulgarian, former manager from the Kozloduy NPP) with a letter to Energy Commissioner Andris Piebalgs: "Now, the impact of the severe economic crisis is compounded by obstinacy and failure to take timely decisions that would have ensured safe, reliable, clean and affordable energy for today and the years ahead. We ask you to review the Kozloduy situation." On Sunday January 18, a small business-interest-led new political party organized around 6000 people to demonstrate in Sofia for the re-opening of Kozloduy 3 and 4.

Again, the European Commission was not impressed. At the same day, Bulgarian Euro-Commissioner Meglena Kuneva tried to explain Bulgarian parliamentarians that Bulgaria needs to submit a motivated detail request to the European Union and that the Commission needs to be convinced with arguments that there is indeed an emergency that can be addressed with such means. Bulgarian daily Dnevnik furthermore calculated that Kozloduy had spent already over 20 Million Euro in keeping the closed blocks in a state that would enable restart, apart from

personnel costs due to keeping staff virtually in tact.

So, the discussion continues, but with gas starting to flow again on January 21, it is clear that chances for re-opening of any of the reactors remain close to zero. Greenpeace in Slovakia and the Green Policy Institute in Bulgaria reminded that larger energy efficiency and the use of renewable sources for heating purposes could prevent crisis situations like the one over the last weeks far cheaper and faster than any nuclear pipe-dreams. All it would need is political will and avoid being side-tracked by lobby groups.

**Source:** Jan Haverkamp, Greenpeace EU energy campaigner.

**Contact for more information:** Jan Haverkamp, Greenpeace EU energy campaigner, jan.haverkamp@greenpeace.org  
Andrea Zlatnanska, Greenpeace Slovakia energy campaigner, andrea.zlatnanska@greenpeace.sk  
Petko Kovachev, Green Policy Institute, Sofia, petkok@bankwatch.org

# URANIUM MINING ISSUES 2008 REVIEW

**For the eleventh consecutive year, the Nuclear Monitor is proud to publish the annual Uranium Mining Issues Review. The reviews are compiled by Peter Diehl from the WISE Uranium Project. First published in the last issue of 1998 it gives an in-depth overview of developments regarding all aspects of uranium mining: price, mines, exploration, environmental issues, indigenous people, production and so on.**

## **(682.5920) WISE Uranium Project -**

During the course of the year, the uranium spot price declined from 90 to 53 US\$ per lb U3O8. These are the price estimates given by Ux Consulting Company, LLC (UxC); the estimates provided by Tradetech LLC differ slightly. The year-end value represents just 39% of the unprecedented June 2007 peak of 136 US\$ per lb U3O8.

World uranium production was 41279 t U in 2007 (2008 figures are not yet available), a 4% increase over the 39655 t U produced in 2006, but still less than the 41702 t U produced in 2005. Notably, U.S. uranium mine production dropped 3% in 2007. Production continued to be lower than the actual demand, the balance being supplied by various stockholdings.

## **Uranium exploration projects**

### **Moratoria**

- \* In Canada, the province of British Columbia issued a ban on uranium exploration, while the Nunatsiavut Government imposed a 3-year moratorium on uranium mining on Labrador Inuit Lands. In Ontario and New Brunswick, municipalities and environmental organizations called for uranium mining bans in their provinces, as well. On the other hand, Nova Scotia considers lifting of its existing moratorium on uranium exploration and mining.
- \* In the U.S., activists called for a moratorium on uranium mining in Texas. In Virginia, the opinion is divided on whether a study should be conducted to determine whether

uranium can be safely mined in Virginia; the study was proposed by Virginia Uranium Ltd, the company that wants to mine the Coles Hill uranium deposit in spite of the uranium mining moratorium currently in effect in Virginia.

- \* In Argentina, the province of Córdoba passed a law prohibiting all open pit mining, including uranium mining.
- \* In Greenland, parliament partially lifted the uranium mining ban: by-product recovery of uranium with mining for other minerals is now permitted.
- \* In Australia, the state of Western Australia lifted the existing uranium mining ban.

### **New policies**

- \* In Canada, the province of New Brunswick issued non-binding

uranium exploration guidelines, rather than a uranium ban.

- \* India is investing "heavily" in domestic uranium exploration, despite the new possibility to buy uranium on the world market (see below).
- \* Vietnam plans to explore for uranium to procure fuel for its nuclear power plant from domestic sources.

### **Indigenous people in opposition to uranium exploration**

- \* In Canada, the Caribou Management Board opposed the uranium exploration project at Garry Lake, Nunavut.

On February 15, 2008, Ardoch Algonquin leader Bob Lovelace was sentenced to six months in jail for blocking a uranium exploration site near Sharbot Lake in Frontenac County, Ontario. Supporters held several demonstrations condemning his sentencing; he was not released until May 28, 2008.

- \* In the U.S., Mount Taylor got preliminary protection from an emergency listing in the New Mexico State Register of Cultural Properties at the request of five American Indian communities. The action would make it more difficult for uranium mining companies to obtain state exploration permits, while protecting a mountain that is considered sacred by tribes and pueblos in the area.

In Arizona, Indian leaders opposed uranium mining near the Grand Canyon, and the Hualapai Tribe issued a ban on uranium mining.

- \* In Greenland, the president of the Inuit Circumpolar Council advocated against uranium mining in the country.
- \* In Australia, native title holders do not want uranium mines at the Angela and Pamela deposits in the Northern Territory, where exploration licences were granted to a joint venture of Cameco and Paladin Energy Ltd.

### **Indigenous people in favor of uranium exploration**

- \* In Canada, Déline granted permission for two uranium exploration projects in the Northwest Territories. The Inuit organization Nunavut Tunngavik Inc. signed agreements with two exploration companies on the Angilak property and on Inuit owned land nearby Areva's Kiggavik uranium deposit in Nunavut.

Seven Saskatchewan First Nations made agreements for uranium exploration with Triple Five Group. Some aboriginals concluded - other than the Ardoch Algonquin (see above) - an agreement on uranium exploration in Frontenac County, Ontario.

- \* In Australia, aboriginal landowners - successfully (see above) - pressured the state to lift the uranium ban in Western Australia. In South Australia, the Adnyamathanha Traditional Lands Association is happy with the benefits the Beverley mine and the planned Four Mile mine bring for its community.

Environmental opposition against uranium exploration

- \* In Canada, the Yukon government approved the Wind River winter road for a uranium exploration project in the Wernecke Mountains, despite vehement protest from environmental organizations.

In New Brunswick, the Tory opposition (!) raised concerns about health hazards from uranium exploration; clever landowners found a new way to repel uranium prospectors: they staked claims on their own land; in Moncton, 800 voiced their concerns on uranium exploration in the province.

In Ontario, the Peterborough City Council opposed uranium mining in the Otonabee River watershed; a coalition group demanded stop of uranium mining in Ontario until a study is done on its impact.

- \* In the U.S., at the occasion of the Iditarod sled dog race, protestors drew attention to concerns over a uranium mining project near an Iditarod checkpoint in Alaska.

In Idaho, residents opposed the approval of uranium exploration in the old Stanley Uranium District.

In Colorado, residents filed a lawsuit against Fremont County Commissioners for allowing uranium prospecting in the Tallahassee area. On June 25, 2008, the U.S. House of Representatives Natural Resources Committee adopted an emergency resolution, to compel the Interior Department to withdraw one million acres of public land around the Grand Canyon from any new mining claims. The emergency resolution was in response to concerns about more than 3,000 uranium mining claims filed in

Grand Canyon watersheds in less than three years. The Secretary of the Interior, however, has defied the resolution and continued to initiate and authorize new uranium exploration within the withdrawal area north of Grand Canyon. In response, conservation groups filed suit against the Secretary of the Interior.

In Virginia, the Halifax Town Council approved a mining and chemical and radioactive trespass ordinance; adoption was triggered by a proposed uranium mining and milling operation near Chatham.

- \* In Argentina, 2000 people protested in Tilcara against uranium exploration in the Quebrada de Humahuaca UNESCO World Heritage area in Jujuy Province. Subsequently, the Provincial Government of Jujuy suspended mining exploration in the area.
- \* In Portugal, 300 people protested against any uranium exploration in Nisa.
- \* In Slovakia, the winegrowers of Tokay opposed uranium exploration in the area.

In Namibia, mining companies prospecting for uranium in the Namib-Naukluft Park pose a major challenge to this protected area, according to a senior Ministry of Environment and Tourism official.

- \* In Armenia, uranium exploration plans by an Armenian-Russian Joint Venture provoked fears among villagers of Lernadzor in the Syunik region.
- \* In Australia, landowners from Adelaide River south of Darwin (Northern Territory) called for an Environmental Impact Assessments for uranium exploration. Environmentalists demanded the formal incorporation of the Koongarra uranium deposit into Kakadu National Park. In Alice Springs, environmental activists rallied against uranium exploration at the Angela and Pamela deposits.

### **Violations at exploration sites**

- \* In Canada, Sparton Resources Inc. left uranium exploration holes in New Brunswick unplugged.
- \* In the U.S., the Wyoming Department of Environmental Quality issued a Notice of Violation to Strathmore Resources for numerous violations connected to exploration activities at its Sky in-situ leach project site; Strathmore paid an US\$18,000 fine. In

addition, Wildhorse Energy Ltd. was fined for violations at its Bison Basin/West Alkali Creek project.

- \* In Australia, Marathon Resources was penalized upon a contamination probe at its Mount Gee uranium exploration site in South Australia. The company had simply buried about 35 tons of waste in plastic and calico bags.

## Uranium mine development projects

### Current development projects

#### Canada:

- \* In Nunavut, Areva aims at a production start in 2016 at its Baker Lake uranium mine project, after local Inuit abandoned their opposition.
- \* In Saskatchewan, a new groundwater inflow halted repair work at the Cigar Lake mine, delaying the startup of the high-grade mine further. In addition, Areva's and Denison's Midwest uranium mine project was postponed due to current economic conditions.
- \* In Ontario, Pele Mountain initiated the permitting process of the Eco Ridge mine in Elliot Lake.
- \* In Québec, Strateco Resources Inc. announced a positive scoping study on its Matoush project.

#### USA

- \* In Wyoming, Strathmore acquired an option for the acquisition of American Nuclear Corp.'s licensed historic uranium mill site in the Gas Hills Uranium District.
- At the Moore Ranch in-situ leach (ISL) uranium project, proposed by Uranium One Inc.'s subsidiary Energy Metals Corp., the U.S. NRC identified significant concerns regarding the proposed leaching in an unconfined aquifer, calling this "a unique setting for an ISL operation".
- U.S. NRC approved the restart of the Christensen Ranch/Irigaray uranium in-situ leach mines; Areva had applied for it in view of the increase of the uranium market price.
- U.S. NRC received a license application for the JAB and Antelope uranium in-situ leach projects.
- \* In Texas, Uranium Energy Corp. now has filed all permit applications required for in-situ leaching of uranium at its Goliad deposit.
- Uranium Resources, Inc. announced that there has been a delay in the

startup of its Rosita wellfield as a result of a number of aquifer related technical issues.

- \* In Colorado, the first production of uranium ore at the J-Bird Mine was reported.
- The Whirlwind mine received a final mining permit.
- Energy Fuels Inc. filed for a county permit for its Piñon Ridge uranium mill project, after having declared to willfully ignore residents' concerns on the project.
- Five companies won bids for uranium mining leases offered by U.S. DOE under its uranium leasing program; environmental groups, however, filed a federal lawsuit claiming that the program clearing the way for uranium mines in western Colorado is illegal.
  - \* In New Mexico, the New Mexico Environmental Law Center released a study that questions a major economic benefit of renewed uranium mining in the state.
  - \* In Utah, Emery county officials signed an agreement with Mancos Resources Inc. to build a \$100 million uranium mill near Green River.

The plan of operation for the Daneros uranium mine in San Juan County was open for public comment.

- \* In Arizona, the state Department of Environmental Quality denied Denison Mines Corp. mining permits for the Canyon mine and the Pinenut mine, for inadequate pollution controls.
- \* In Virginia, the City Council of Virginia Beach took stand against uranium mining in Pittsylvania County; the downstream community fears impacts of the proposed uranium mine on its water supply.

#### South America

- \* In Brazil, the state-run nuclear mining and fuel company INB chose local fertilizers producer Galvani as the private partner to mine phosphate and uranium at the Santa Quitéria deposit in Ceará state.
- \* In Argentina, NGOs denounced irregular granting of land for a uranium mine in La Rioja province.

#### Europe

- \* In the Czech Republic, environmental activists held several demonstrations against the proposed mining of the Osecná-Kotel uranium deposit in North Bohemia. In June, the Czech

Environmental Ministry denied a request for mining of the deposit. The company has lodged appeals against the decision.

- \* In Hungary, WildHorse Energy Ltd signed a cooperation agreement with Mecsekérc, a state owned privatized company, with the aim of restarting uranium mining in the Mecsek Hills, in southern Hungary; the first mine could open in 2010.
- \* In Spain, Berkeley Resources Ltd announced to develop uranium mining assets in Salamanca Province; feasibility studies are underway.

#### Africa

- \* In Malawi, Paladin Energy Ltd and the Malawi Government agreed on an environmental bond for the Kayelekera mining project that is currently under development in Karonga. The Commission for Justice and Peace of the Roman Catholic diocese of Mzuzu in northern Malawi has launched a project to monitor uranium mining in the country and will begin by focusing its attention on the Kayelekera mine.
  - \* In Niger, Areva received government agreement to launch mining at the Imouraren deposit. The Imouraren site will be at the second world rank with almost 5000 tons of uranium produced annually.
- China Nuclear International Uranium Corp. (SinoUranium) awarded a contract for construction of the Azelik uranium mine.
- \* In Namibia, utility NamPower urged a freeze on new mines over the regional energy crunch. Later, reports said the utility is planning an 800 MW coal-fired power plant (!) to supply the growing demand for electricity from uranium mines.

The Namibian government plans to build a second water desalination plant for the uranium mines.

The Chief of the desert-dwelling Topnaar community expressed concern over the ongoing prospecting and mining of uranium in areas in Namib Naukluft Park that are protected because of their unique flora and fauna.

In June, Namibia granted the license for the Trekkopje uranium mine. First yellow cake production is expected for end 2009. State-owned Chinese firm, Guangdong Nuclear Power

Corporation, signed a contract with Areva to buy 35% of the Trekkopje mine's uranium output; moreover, the Chinese company is planning to acquire 49% of Uramin Inc. - Areva's recently acquired subsidiary owning the Trekkopje mine.

In February, Forsys Metals Corp received a permit for abstraction of scarce local ground water for its Valencia uranium mine project. Farmers challenged the water permit, but the High Court upheld it. On April 25, Forsys issued the draft Environmental Impact Assessment for the mine project, and on June 4 (less than 6 weeks later!), Forsys received the Environmental Clearance for the project. And, on August 21, the Ministry of Mines and Energy issued the Mining Licence for the project.

In November, Forsys Metals Corp announced that the company is to be acquired by a member of the Forrest Group, a private industrial conglomerate based in the Democratic Republic of Congo.

Rössing released the Final Social and Environmental Impact Assessment for Phase 1 and the Scoping Report for Phase 2 of its Mine Expansion Project. Bannerman Resources commissioned a full feasibility study for its Goanikontes uranium mine project.

\* In South Africa, the start of uranium production at the Ezulwini gold and uranium mine has been delayed due to power shortages and construction problems.

Niger Uranium Ltd plans an open pit uranium mine on the Henkries deposit by 2011.

In August, a chief headman was killed in Mgungu village, Mzamba, in what is believed to have been a dispute over land for a proposed uranium mine.

\* In Zambia, Equinox Minerals Ltd announced a positive Feasibility Study for uranium extraction at its Lumwana copper mine project.

In December, the mine project received environmental approval, but Equinox postponed a decision on the mine development "due to current difficulty in international project financing as well as current market prices for uranium oxide".

Albidon Ltd and African Energy Resources Ltd announced a Pre-Feasibility Study - more or less -

showing the viability of their Chirundu Uranium JV project, using open pit mining and acid heap leaching.

\* Somalia invited Russian firms to develop uranium deposits in the country; prospecting for uranium deposits had been carried out during the Soviet era.

\* In the Central African Republic, Areva signed a uranium mining deal on its Bakouma project.

\* In Tanzania, Uranex NL announced the commencement of a pre-feasibility study on its Bahi uranium project. Uranex NL may start operating a uranium mine in Tanzania's central Bahi region within two years.

\* In Botswana, A-Cap Resources Ltd released the result of a positive scoping study for its Letlhakane uranium mine project.

### Asia

\* In India, the Department of Atomic Energy demanded commercialization of all exploratory uranium mines in the country to fill the country's nuclear fuel supply gap. Subsequently, the Oil and Natural Gas Corporation Ltd. (ONGC) signed a memorandum of understanding with the Uranium Corporation of India Ltd. (UCIL) for cooperation in uranium exploration and development.

In the northeastern state of Meghalaya, India's central government invested in the development of infrastructure around the proposed uranium mining site, while opposition continued with protests by the Khasi Students Union (KSU) and Traditional heads organized in the Grassroots Democracy Advisory Council (GDAC). Researchers of the Centre for Science and Environment (CSE) found loopholes in the Environmental Impact Assessment (EIA) report on the uranium mining project.

In Jharkhand (the home of the only active uranium mines in India) the Bagjata uranium mine was inaugurated, while the Turamdih uranium mill still was on trial run. UCIL got leases for four further uranium mines in Jharkhand.

In Andhra Pradesh, the foundation stone was laid for the Tummalapalle uranium mine and mill in Cuddapah.

\* In Kazakhstan, production started at the West Mynkuduk in-situ leach (ISL) uranium mine. The South Inkai uranium ISL mine was granted

approval for commercial production. Kazatomprom announced the development of the Irkol, Semizbay, and Zhalpak deposits in compliance with strategic agreements concluded with China National Nuclear Corporation (CNNC) and China Guangdong Nuclear Power Corporation (CGNPC).

\* In Pakistan, the uranium mining project Taunsa 2 in Dera Ghazi Khan was approved.

\* Iran announced to open a new uranium mill at Ardakan, central Iran, before end March 2009.

\* Jordan announced to float an international tender to invite bids for the design and construction of the country's first uranium mine by the end of 2008, to be operational by 2012.

\* In Russia, a new uranium/gold mill is to be built at the Lunnoye deposit in South Yakutia. Construction of the huge Elkon uranium mine and mill in Yakutia is to start in 2009. Atomredmetzoloto, the state holding company for Russia's uranium mining assets, plans a \$7.4 billion investment in uranium mining by 2015; Russian uranium production could boost from 3520 tons mined in 2007 to 20,000 t/a by 2024.

\* In Mongolia, Marubeni Corporation of Japan signed a letter of intent on the development of the Dornod uranium project.

An Environmental Impact Assessment was filed for the Gurvanbulag uranium mine project.

### Australia

\* In the Northern Territory, Arafura Resources Ltd commissioned a definitive feasibility study for the Nolans rare earth project that will also produce some uranium. Toro Energy Ltd commissioned a scoping study for the Napperby uranium mine project.

\* In Western Australia, Cameco completed acquisition of a 70% interest in the Kintyre uranium deposit.

Mega Uranium Ltd. received a positive preliminary economic assessment of its Lake Maitland uranium resource and now hopes to advance the project through to production in 2011.

Upon Western Australia's decision to lift the state's uranium mining ban, BHP Billiton announced to reactivate the

Yeelirrie uranium mine project.

\* In South Australia, the Honeymoon in-situ leach uranium mine received government approval in January. In May, however, Uranium One Inc. announced the suspension of the mine development. After Mitsui & Co Ltd announced in October to acquire a 49% stake in the project, engineering services for the development of the mine were contracted in December.

Alliance Resources Ltd announced the decision to mine the Four Mile deposit by in-situ leaching, skipping a previously planned field leach trial; uranium concentrate production is proposed to commence in January 2010. The Adnyamathanha Traditional Lands Association is in favour of the project (see above).

Curnamona Energy Ltd lodged the Mining and Rehabilitation Program (MARF) document for the field leach trial at its Oban deposit.

The Sinosteel/PepinNini Joint Venture lodged an application for a Mining Lease for the development of a uranium mine at Crocker Well.

### **Alternate uranium recovery projects**

\* Recovery of residual uranium from uranium mill tailings deposits is proposed by Mintails Ltd for the West Rand tailings in South Africa.

Residents from the Wonderfontein area raised concerns about the 300 million t Witfontein "megatailings" facility that is to receive the processed tailings from 15 existing tailings dams; the new tailings dam is to cover an area of 3 km x 4 km at a height of 115 m. In July, the company awarded a contract for the solvent extraction plant required for the processing plant; in December, however, the company conceded that the current cost and scarcity of sulphuric acid renders the uranium recovery uneconomic.

\* In Kyrgyzstan, Nimrodel Resources Ltd investigated the feasibility of uranium recovery from abandoned uranium mill tailings deposits in Mailuu Suu. In October, the company announced that "in the context of the prevailing global economic uncertainty and current uranium prices" the

uranium recovery is not feasible.

\* In the north of Tajikistan, state enterprise Vostokredmet began research on the possibilities of uranium extraction from uranium mill tailings, as well.

\* In Chile, state-owned copper company Corporación Nacional del Cobre (Codelco) plans to determine the feasibility of extracting uranium from its northern Chuquibambilla and Radomiro Tomic mines.

\* In Jordan, Jordan Phosphate Mines Company (JPMC) is conducting a feasibility study for uranium extraction from phosphates.

\* India aims at uranium extraction from phosphoric acid, as well; the Heavy Water Board (HWB) is setting up a demonstration plant at Chembur in northeast Mumbai.

\* For the extraction of uranium from sea water, India's Bhabha Atomic Research Centre (BARC) reported "significant progress" using natural and genetically-engineered microbes.

\* And, Japan's Mitsubishi Research Institute (MRI) proposed uranium extraction from sea water by seaweed.

### **Issues at operating uranium mines and mills**

#### **Life extension of operating uranium mines**

\* In the Czech Republic, exploration showed that the only operating Czech uranium mine Dolní Rozínka could operate until about 2015, three years longer than expected.

\* In Namibia, Rössing was granted Environmental Clearance for Phase 1 of its Mine Expansion Project. Rössing then released the Final Scoping Report for the Social and Environmental Assessment for Phase 2 of the Mine Expansion Project; this includes a new acid heap leaching facility. In August, Rio Tinto announced it may further extend Rössing's mine life beyond 2021 up to 2030.

\* In Australia, Heathgate Resources released the draft Public Environment Report for the Beverley Uranium Mine Extension in South Australia.

### **Planned production increases at operating uranium mines**

\* In the U.S., Nuclear Regulatory Commission (NRC) granted a hearing to Native opponents of the Crow Butte uranium in situ leach mine's North Trend Expansion project in Nebraska.

In Colorado, Bureau of Land Management (BLM) invited comment on the extension of uranium mining at the Sunday mine complex.

\* In Namibia, Paladin Energy Ltd plans to more than double the production capacity of the Langer Heinrich uranium mine to 2300 t U per year.

And, Rössing plans to increase the annual uranium-oxide production from 3046 metric tons in 2007 to 5500 (possibly 6,500) in 2012.

\* Kazakhstan plans to boost annual uranium production from 6600 tonnes in 2007 to 15400 tons by 2010.

\* Russia intends to invest US\$2 billion in the development of the country's biggest uranium mine at Krasnokamensk.

\* In Australia, the extension of Heathgate Resources' Beverley uranium in-situ leach mine in South Australia was approved; environmentalists called this a "blank cheque licence for pollution".

BHP Billiton intends to have the first stage of the Olympic Dam mine expansion in production by 2013. Scientists denounced the location of the proposed desalination plant for the mine expansion as inappropriate. Environmentalists opposed the planned mine expansion outside BHP's annual general meeting.

#### **Restart of idle uranium mills**

During the first half of the year, the uranium industry was still hopeful that several idle uranium mills could be restarted.

\* In the U.S., Cotter Corp. considered reopening its Cañon City uranium mill in Colorado; in Wyoming, Kennecott performed a restart evaluation of the Sweetwater mill, and in Utah, processing of conventional ore commenced at the White Mesa Mill that had been processing only alternate feed materials during recent years.

\* In Kyrgyzstan, the Kara Balta mill resumed uranium production; moreover, a US\$200 million

investment is planned for the re-equipping of the mill.

### Shutdown of uranium mines

As the uranium price continued its decline, poor economics led to several mine closures in the second half of the year: In the U.S., the Tony M mine in Utah and the Whirlwind mine in Colorado were temporarily closed. In South Africa, the Dominion mine was shut down.

### Production setbacks experienced at operating uranium mines

- \* In South Africa, AngloGold Ashanti canceled outstanding uranium delivery contracts representing a 30% reduction in uranium deliveries (from uranium by-product extraction in its Vaal River area gold mines).
- \* In Australia, Energy Resources of Australia (ERA) halted mining at Ranger in the Northern Territory ahead of a cyclone in January; in the second quarter, Ranger's uranium output dropped 31% due to water inflow.

### Environmental issues at operating uranium mines

- \* In Canada, seepage was discovered at the Rabbit Lake mill in Saskatchewan.
- \* In the U.S., the Wyoming Department of Environmental Quality (DEQ) denounced the poor environmental compliance at the Smith Ranch/Highland in situ leach mine and issued in March a Notice of Violation to Cameco's subsidiary Power Resources Inc. (PRI - in the meantime renamed to Cameco Resources) for failure to conduct concurrent reclamation. The Notice of Violation is based on an investigation conducted in 2007, after a major spill of injection fluid went unnoticed for weeks. The Investigation Report also lists a number of further issues, such as:
  - The mine and reclamation plans contained in the permit document are out of date and incomplete in several important areas.
  - PRI's typical wellfield installation procedures result in the near total disturbance of the native vegetation and soils. This is not consistent with the regulation that allows for "minor disturbance" without topsoil stripping.

- Over the years there have been an inordinate number of spills, leaks and other releases at this operation. Some 80 spills have been reported, in addition to numerous pond leaks, well casing failures and excursions. Unfortunately, it appears that such occurrences have become routine.

- The reclamation cost estimates contained in PRI's annual reports are based on a scenario that is totally infeasible and unsupported by any critical path timeline or water balance. Rough calculations based primarily on PRI's figures reveal an alarming scenario. A realistic reclamation cost estimate for this site would likely be on the order of US\$150 million, as compared to PRI's current calculation of US\$38,772,800. PRI is presently bonded for a total of only US\$38,416,500. No bond adjustments have been made since 2002. Clearly the public is not protected.

- PRI's environmental efforts have suffered from inadequate staffing, high turnover, lack of institutional memory and a low level of corporate commitment. There has been a lack of continuity and follow-through on many issues. At this point in time, overall environmental compliance at this operation is poor. In July, Cameco announced that a settlement agreement has been reached with the Wyoming DEQ; the agreement comprises several steps to accelerate restoration, and increases the bond for Smith Ranch and Highland to US\$ 80 million, among others. Cameco agrees to pay a US\$900,000 penalty, US\$400,000 of which will be suspended, if Cameco satisfies the terms of the agreement. In addition, Cameco will pay US\$500,000 "to fund future, unspecified Supplemental Environmental Projects". In July, Wyoming DEQ issued another Notice of Violation to Cameco Resources for deficiencies identified during an abandoned drill hole inspection at the Smith Ranch ISL site; Cameco Resources agreed to pay a US\$50,000 fine. In November, U.S. NRC issued another Notice of Violation to Cameco Resources for further deficiencies identified at the Smith Ranch ISL mine. In November, the Wyoming DEQ issued a Notice of Violation to Energy Metals Corp. for failures at its Antelope in-situ

leach site.

In Nebraska, a District Court imposed a US\$50,000 penalty on Cameco's subsidiary Crow Butte Resources for various violations at its Crow Butte in-situ leach uranium mine; in addition, a geologist raised concern over potential groundwater contamination at the mine.

In Colorado, Cotter Corp. pleaded guilty to poisoning migratory birds at its Cañon City uranium mill. Later, the Colorado Department of Public Health and Environment (CDPHE) cited Cotter for groundwater contamination near the mill.

- \* In Brazil, Industrias Nucleares do Brasil (INB) released the results of groundwater monitoring near the Caetité uranium mill in Bahia state. While excessive uranium concentrations were observed in groundwater on site, concentrations met standards at the neighbouring community of Juazeiro.
- \* In Namibia, the Langer Heinrich uranium mine was flooded after a rainstorm in March. In April, inadequate intervention after a large sulphuric acid spill at the mine led to explosions.
- \* In South Africa, excessive concentrations of radioactive substances were found in vegetables grown near gold/uranium mines. The National Nuclear Regulator (NNR) denied water and foodstuffs in the Wonderfontein spruit catchment area are radioactive - despite scientific reports. On Sep. 17, the Department of Water Affairs denied any health hazard from contaminated water in the Wonderfontein spruit catchment area - despite scientific evidence presented the day before at an international conference; the scientists had concluded that an "unacceptable level of risk has been identified, primarily due to the chemical toxicity of uranium on ingestion via drinking water."
- \* In Kazakhstan, penalties were imposed on the Inkay ISL mine for illegal waste dumping and on the Muyunkum ISL mine for environmental violations.

\* In India, a spill from a tailings pipeline burst reached homes at Jaduguda in Jharkhand in February. In June, heavy rain caused a tailings overflow into Turamdih village. In July, a uranium mill tailings spillover occurred at Jadugoda during flash floods. In August, another spill from a tailings pipeline burst reached homes at Jaduguda, again.

### Other Issues at operating uranium mines

\* In Canada, the Canadian Nuclear Safety Commission (CNSC) approved the license renewal for the McArthur River, Key Lake, and Rabbit Lake uranium mines and/or mills in Saskatchewan. The license renewal for Cameco's Key Lake uranium mill was issued in spite of serious deficiencies identified:

- CNSC staff assigned C ratings ("below requirements") in four out of ten program areas assessed: operations (in particular waste management and fire protection), quality management, environmental protection, and training,
- the measures taken to reduce molybdenum and selenium loads in the plant's effluents are not working at all (yet?),
- the problem of pit wall sloughing in the Deilmann open-pit tailings facility (characterized by Cameco as a "world class facility for long-term tailing storage"!) remains unresolved,
- no concept exists (yet?) for the final long-term management of the tailings stored at the site.

In February, Cameco and Areva Resources released the Environmental Impact Statement for the Rabbit Lake Solution Processing project (that is, processing of Cigar Lake uranium ore at the Rabbit Lake mill in Saskatchewan).

\* In the U.S., the opponents to a license renewal for the Cameco's Crow Butte uranium in-situ leach mine in Nebraska were granted a hearing. In Wyoming, Cameco Resources requested a license amendment for the processing of third-party resin at its Smith Ranch - Highland in-situ leach mine; however, NRC staff determined that the request is unacceptable for lack of environmental analysis (!).

\* Areva received the Public Eye Award as one of "the world's most irresponsible companies" for its uranium mining operations in Niger. Niger Tuareg rebels continued their violent fight for a larger share of the uranium revenue in the country; they attacked a uranium lorry, seized four French uranium workers, among others.

\* In South Africa, workers went on strike against poor working conditions at the Klerksdorp uranium mine.

\* Burma is allegedly mining uranium.

\* In Australia, more than a dozen workers were 'caked' in uranium in October during a clean-up operation at the Ranger mine in the Northern Territory; eight workers who were tested were all over the acceptable limit for uranium.

### Abandoned mines

\* In Canada, the Canadian Environmental Assessment Agency (CEAA) initiated the public participation process in the Proposed Former Gunnar Mine Site Rehabilitation Project in Saskatchewan.

\* In the U.S., the New Mexico House approved in February a proposal to pay for cleaning up contamination from abandoned uranium mines and mills. The New Mexico Governor, however, vetoed the bill, since the funding level provided in the bill were inadequate.

In July, the state awarded a contract for the cleanup of a few abandoned uranium mines.

In response to a House Committee request, the Environmental Protection Agency (EPA) announced a plan towards cleaning up the legacy of abandoned uranium mines on the Navajo Nation, and the NRC issued a "strategy for outreach and communication with Indian tribes potentially affected by uranium recovery sites" (!). Navajo, in turn, demanded a comprehensive assessment of abandoned uranium mines.

In Arizona, the Park Service was to

advance the cleanup cost for the abandoned Orphan Mine Site, as responsible parties ducked.

\* In the Democratic Republic of Congo, smuggled ore was seized near the former Shinkolobwe uranium mine.

\* In China, illicit uranium mining continued in the closed 712 Uranium Mine.

\* In Kyrgyzstan, the government issued a decision on the reclamation of abandoned uranium mill tailings dumps. The country is to create a special agency for this purpose. NATO funds a study on impacts of possible earthquakes in the Fergana valley. Relocation of two tailings dumps in Mailuu-Suu is to begin in 2009.

In Australia, rare fish were discovered in a disused Kakadu uranium mine.

### Decommissioning issues

\* In the U.S., the long awaited relocation of the Atlas tailings in Moab, Utah, is to begin in May 2009. The relocation will be done by rail and take at least until 2025, despite a 2019 congressional deadline. The cost could exceed US\$1 billion.

In Colorado, uranium mill tailings materials had to be removed during road construction in Grand Junction. The Uravan uranium mill site cleanup was completed. NRC approved natural flushing as groundwater compliance strategy for the Durango uranium mill tailings site.

In New Mexico, U.S. EPA opposed United Nuclear's request to halt groundwater treatment at its Church Rock uranium mill tailings site. United Nuclear, in turn, requested further relaxed groundwater standards at the site.

The Agency for Toxic Substances and Disease Registry (ATSDR) released a Public Health Consultation that concluded the Homestake Mining Company Mill Site in Milan (Cibola County) is a public health hazard for the contaminant concentrations found in private wells in the area.

In Washington state, Newmont Mining Corp. refused in February to pay the US\$152 million cleanup bill for its

Midnite uranium mine.

In July, a judge held Newmont partially liable for the Midnite mine contamination. In November, U.S. EPA ordered Newmont and its subsidiary Dawn Mining Company to continue the cleanup work at the mine.

In Wyoming, Areva sought approval for groundwater restoration at its Christensen Ranch in-situ leach site - with uranium levels still up to 27 times the target restoration value and up to 128 times the drinking water standard. Areva also requested a license renewal for restoration of the mine site.

At the Exxon Highland uranium mill tailings deposit, an offsite groundwater contaminant plume was identified. U.S. NRC demanded further assessment of the plume.

In Texas, a lawyer's report found that permission of relaxed groundwater restoration standards is a matter of habit with shutdown of uranium in situ leach facilities in the state.

\* In Argentina, the World Bank approved a US\$30 million loan for the cleanup of closed uranium mine and mill sites.

\* In Estonia, the cleanup at the Sillamäe tailings pond was completed.

\* In France, the cleanup at the former St-Priest-la-Prugne (Loire) uranium mine still is incomplete, according to the independent radiation monitoring group CRIIRAD. Elevated radiation levels were also found at the former Rosglas (Morbihan) uranium mine site.

\* In Germany, burrowing mice undermined the stability of the cover of a uranium mine waste rock pile in Aue, Saxony.

The reclamation of the former Crossen uranium mill site was completed, and the reclamation of the Dänkritz I uranium mill tailings deposit was almost completed.

\* In the Czech Republic, a new treatment plant is to accelerate the groundwater restoration after uranium in-situ leach mining at Stráz pod Ralskem in North Bohemia.

The European Union is to pay for the cleanup of the former Mydlovary uranium mill site in South Bohemia.

\* In South Africa, Draft Regional Mine Closure Strategies were issued for comment.

## **Miners' and residents' health issues**

A study released by the Utah Department of Health found an elevated risk of lung, bronchial and stomach cancers among Monticello residents during several five-year time periods from 1973 to 2004. However, the study is unable to draw a direct link to uranium and vanadium processing at the former Monticello uranium mill.

In New Mexico, a study found an increased mortality among Grants underground uranium miners, but not among uranium mill workers.

The German uranium miners' study provides some evidence of increased risk of extrapulmonary cancers associated with radon, but chance and confounding cannot be ruled out.

The Spanish government declined recognition of former Andújar uranium mill workers' ailments as professional diseases.

In India, a survey performed by the Indian Doctors for Peace and Development (IDPD) found excess deformities and cancer among residents near the Jadugoda uranium mine in Jharkhand.

## **Regulatory issues**

\* In the U.S., North Dakota is developing uranium mining rules in anticipation of a uranium mining boom.

The South Dakota Water Management Board approved new rules for in-situ leaching. South Dakota also revised rules for reclamation of exploration test holes and in-situ leach mining.

The Navajo Nation Council approved legislation to establish a tribal Superfund law.

The Colorado General Assembly passed a law restricting in-situ leach uranium mining in the state. The law requires mining companies to show they will reclaim and restore groundwater to pre-mining quality or to state standards. It was initiated by residents concerned about Powertech Uranium's proposed Centennial in-situ leach uranium mine.

The Texas Commission on

Environmental Quality (TCEQ) approved the disposal of uranium byproduct material (including uranium mill tailings) at Waste Control Specialists' Andrews County disposal site.

The U.S. Nuclear Regulatory Commission (NRC) released a Draft Generic Environmental Impact Statement (GEIS) for In-Situ Leach Uranium Milling Facilities for comment. The GEIS is meant to simplify the licensing process for in-situ leach uranium mines and drew thousands of comments.

\* Germany plans to introduce a 10 microgram per liter drinking water standard for uranium. Germany has no such standard, so far.

\* Twenty Slovak non-governmental organizations have filed a complaint with the European Commission over certain new pieces of legislation in Slovakia. The legislation adopted in 2007 ended the participation of civil associations in the licensing process for mining, the construction of new power plants, hazardous waste repositories and chemical factories. Current controversial projects include planned uranium mining in Jahodná (Kosice region), among others.

\* The Council of the European Union adopted new statutes of the Euratom Supply Agency.

\* Zambia enacted a uranium mining law.

## **Uranium trade and foreign investment issues**

### **Uranium export restrictions**

\* On September 6, 2008, the Nuclear Suppliers Group (NSG) lifted its ban on nuclear trade with India. South Africa and Kazakhstan are prepared to supply uranium to India, and Russia and Areva already signed such agreements. Australia, however, announced that its ban on uranium sales to India stays in spite of the NSG waiver.

\* Australian and Russian NGOs and an Australian parliamentary committee opposed Australian uranium exports to Russia.

\* Russia signed a deal to build a uranium enrichment plant in China and supply uranium. Energy Resources of Australia signed a deal for uranium export to China; first

Australian uranium was shipped to China in November.

### Uranium trade, general

- \* The Canadian province of Saskatchewan wants climate credit for uranium exports: Saskatchewan Premier Brad Wall said the provincial government estimates over half-a-billion tons of greenhouse-gas emissions are displaced by uranium from Saskatchewan. He said the province should receive recognition for that within any forthcoming national protocols on credits and carbon trading.
- \* South Korea signed a contract to purchase 2600 tons of uranium from Uzbekistan.
- \* In Germany, a railcar with a yellow cake shipment destined for the Malvési conversion plant in France was overloaded in the Hamburg port. The error was only discovered when the railcar crossed the French border.
- \* The U.S. DOE issued its Excess Uranium Inventory Management Plan.

### Foreign exploration and mining investment and cooperation

- \* Chinese Sinosteel entered a Joint Venture for uranium exploration in Saskatchewan, Canada.
- Chinese East Nickel Mining Inc. entered a Joint Venture for uranium exploration in Manitoba, Canada.
- \* Russia's Rosatom offered Brazil assistance with uranium exploration.
- \* Venezuela and Russia signed an accord on nuclear cooperation.
- \* France and Libya signed an agreement for nuclear cooperation, including uranium exploration.
- \* France and Algeria signed a nuclear power accord, including uranium exploration and production.
- \* With Earthstone group, a further Indian company was granted uranium exploration permits in Niger.
- \* Russia's Atomredmetzoloto is to start uranium prospecting in the Klein Spitzkoppe area in Namibia.
- \* Jordan signed deals on uranium exploration and mining in the country with France/Areva, Britain, and China.
- \* Russia and Armenia established a joint venture for the exploration and mining of uranium in Armenia.
- \* Japanese companies Mitsui and Sojitz Corp. signed accords to explore for uranium in Uzbekistan.
- \* Russia announced to help Tajikistan to develop its uranium deposits.
- \* Russia and Mongolia signed an agreement to cooperate in the production of Mongolian uranium.
- \* Russia's Atomredmetzoloto is considering setting up a joint venture with Areva for uranium prospecting and mining in promising areas in Russia and Africa.
- \* Russia and India are planning joint uranium extraction.
- Atomredmetzoloto and a South Korean consortium signed a memorandum on uranium exploration and mining.
- \* Indonesia hopes to exploit uranium reserves in Kalimantan with Australia's help.
- \* India's Reliance Industries acquired a 49% interest in uranium exploration projects in South Australia.

The 2008 and all other annual uranium mining reviews can be found at: <http://www.wise-uranium.org/uissr08.html>

**Source and contact:** Peter Diehl at the WISE Uranium Project

# CLINTON'S INVESTMENT IN URANIUM

**An article in *The New York Times* on Jan. 31, 2008 implied that former U.S. President Bill Clinton used political influence in Kazakhstan to allow Canadian mining magnate Frank Giustra to invest in what turned out to be a very profitable uranium venture in return for Giustra's major donations to Clinton's foundation. According to the NYT, Giustra's deal was brokered by ex-president Clinton during a so-called "philanthropic tour" of the Central Asian state in late 2005. A few months later, Clinton's charitable foundation received just over US\$30 million from Giustra, followed by a whopping US\$ 100 million soon afterwards.**

**(682.5921) WISE Amsterdam** - Frank Giustra, heads a specialist investment bank, Endeavour Financial, which picks opportunities in the minerals sector. Previously he was president and CEO of Yorkton Securities, one of Canada's leading venture capital firms and also a major investor in mining. In late 2004, Mr. Giustra began talking to investors, and put together a company that would eventually be called UrAsia Energy Ltd. Late on September 6, 2005, a private plane carrying the Canadian mining financier flew to Almaty, Kazakhstan. A fortune awaited: highly coveted deposits of uranium. And Mr. Giustra was in hot pursuit of an exclusive deal to tap them. Unlike more established competitors, Mr. Giustra was a

newcomer to uranium mining in Kazakhstan. But what his fledgling company lacked in experience, it made up for in connections. Accompanying Mr. Giustra that day was a former president of the United States, Bill Clinton. Within two days, corporate records show that Mr. Giustra came up a winner when his company signed preliminary agreements giving it the right to buy into three uranium projects controlled by Kazakhstan's state-owned uranium agency, Kazatomprom.

A spokesman for Mr. Clinton said the former president knew that Mr. Giustra had mining interests in Kazakhstan but was unaware of "any particular efforts" and did nothing to help. Mr. Giustra

said he was there as an "observer only" and there was "no discussion" of the deal with Mr. Nazarbayev or Mr. Clinton. But Moukhtar Dzhakishev, president of Kazatomprom, said in an interview that Mr. Giustra did discuss it, directly with the Kazakh president, and that his friendship with Mr. Clinton "of course made an impression."

Within 48 hours of Mr. Clinton's departure from Almaty on Sept. 7, 2005, Mr. Giustra got his deal. UrAsia signed two memorandums of understanding that paved the way for the company to become partners with Kazatomprom in three mines. The cost to UrAsia was more than US\$450 million. Clinton's foundation has a right

to half of any of Giustra's future minerals earnings.

Records show that Mr. Giustra donated the US\$31.3 million to the Clinton Foundation in the months that followed in 2006, but neither he nor a spokesman for Mr. Clinton would say exactly when. In February 2007, Uranium One agreed to pay US\$3.1 billion to acquire UrAsia. Mr. Giustra, would be paid US\$7.05 per share for a company that just two years earlier was trading at 10 cents per share.

That same month, Mr. Dzhakishev, the Kazatomprom chief, said he travelled to Chappaqua, N.Y., to meet with Mr. Clinton at his home. Mr. Dzhakishev said Mr. Giustra arranged the three-

hour meeting. Mr. Dzhakishev said he wanted to discuss Kazakhstan's intention - not publicly known at the time - to buy a 10 percent stake in Westinghouse, a United States supplier of nuclear technology.

Mr. Dzhakishev said he was worried the proposed Westinghouse investment could face Capitol Hill national security concerns that would kill the deal. Clinton first said he had not been lobbying this issue for Mr. Giustra but a few days later had to admit a meeting at his home did take place,.

Now the whole issue has been raised again as Hillary Clinton is to become Secretary of State in the Obama government. While Clinton has agreed

not to take any more money from regimes that have a stake in his wife's policies, he still can accept money from foreign business executives as long as he names them annually. That ensures, Clinton said, there won't be "even the appearance of a conflict of interest." It doesn't take a cynic to wonder if Secretary Clinton is in an impossible situation. What happens if Madam Secretary goes soft on Kazakhstan? There's rarely hard evidence but excuse us for asking.

**Sources:** New York Times, 31 January 2008 / Judicial Watch Blog, 31 January 2008 / The Croesus Chronicles, 12 January 2009 / Bloomberg.com, 15 January 2009 / Wikipedia.org, 21 January 2009

## IN BRIEF

**German Nuclear Waste Site in Danger of collapsing.** The Federal Office for Radiation Protection (BfS) had learned late last year that pieces of the ceiling of the 750-meter deep chamber were unstable and could collapse on top of the 6,000 radioactive waste drums below. The information about the Asse nuclear waste site (an old salt mine) was posted discreetly on the radiation office's Web site late Wednesday, January 14. The BfS said it could not rule out damage to the waste containers should the Asse site ceiling collapse, but gave its reassurances that it would reinforce the seals of the chamber with concrete to stop any radioactive dust or air escaping. The office said the measures were only a precaution and that there was no immediate danger posed by the site. It said the waste inside the chamber contained only low-levels of radioactivity. The site has not been used for fresh radioactive storage since 1978, with environmental groups regularly calling for waste there to be removed and stored in a safer location.

**Deutsche Welle, 16 January 2009**

**Brazil to start enriching uranium at Resende.** Industri as Nucleares do Brasil (INB) has been issued a temporary licence by the Brazilian Nuclear Energy Commission (CNEN) to start enriching uranium on an industrial scale at its Resende plant. INB has held an environmental licence to enrich uranium since November 2006, but the plant's operating permit, which is valid for one year, has been now amended by the CNEN. Production of enriched uranium is expected to begin in February, with some 12 tons of enriched uranium expected to be produced by the end of 2009. The ultra-centrifugation enrichment technology used at the plant was developed by the Naval Technology Centre in Sao Paulo (CTMSP) and the Institute of Energy and Nuclear Research (IPEN). However, the technology is similar to Urenco's technology.

The Resende plant currently has two cascades of centrifuges. The first cascade commenced operation in 2006 and the second was expected to do so in 2008. Stage 1 - eventually to be four modules totalling 115,000 SWU per year and costing US\$170 million - was officially opened in 2006. Each module consists of four or five cascades of 5000-6000 SWU per year. It is planned that a further eight cascades are installed by 2012, which will take the capacity to 200,000 SWU. By that time, INB is expected to be able to produce all the enriched uranium used in the Angra 1 reactor and 20% of that used in Angra 2. Those are the country's only operating power units at the moment, although plans to complete Angra 3 are advancing and many more reactors are expected in time.

Up until now, uranium used to fuel Brazil's nuclear power reactors has been sent as uranium concentrate to Cameco in Canada to be converted into uranium hexafluoride (UF<sub>6</sub>) gas, which has then been sent to Urenco's enrichment plants in Europe. After enrichment, the gas has been returned to Brazil for INB to reconvert the UF<sub>6</sub> gas to powder, which is then used to produce nuclear fuel pellets.

**World Nuclear News, 14 January 2009**

**Australia/UK: Plutonium secretly dumped at sea?** Declassified UK Government files show that 500g of plutonium and about 20 kg of radioactive wastes were secretly removed from the 1950s bomb test site at Maralinga in Australia. The UK Government removed the wastes in 1978 and although there is no official record of what happened to it the suggestion in the files is that it was secretly dumped at sea.

**N-base Briefing 596, 7 January 2009**

### **Sellafield privatisation: Rushed liabilities deal**

Commercial insurance companies refused to consider any policy regarding liabilities for an accident at Sellafield which might be bought in courts outside the UK which were not party to existing liability conventions. Energy minister Mike O'Brien told the House of Commons the Nuclear Decommissioning Authority approached the nuclear insurance market in 2007 when it was preparing the contract for a private company to run Sellafield. The Government and NDA eventually indemnified the private companies chosen to run Sellafield and the Drigg waste facility against any costs arising from an accident - even if it was shown to be the fault of the commercial company.

Meanwhile, documents obtained under the Freedom of Information Act show the lengths ministers and civil servants took to prevent MPs from having the opportunity to discuss the decision to make the contract for running Sellafield more financially attractive to private companies. The Government agreed to take over responsibility for the costs of any accidents at Sellafield after the preferred bidders, Nuclear Management Partners, said it would not sign the contract unless it was indemnified against all costs. Ministers abandoned normal procedures to ensure that by the time MPs learned of the arrangements it would be too late to make any changes.

**N-base Briefing 596 & 597, 7 & 14 January 2009**

**Turkey: AtomStroyExport revises bid.** A consortium led by Russia's AtomStroyExport submitted a revised bid for the tender to build Turkey's first nuclear power plant minutes after the contents of its initial bid were announced. At 21.16 cents per kWh, the initial bid submitted by the consortium is nearly triple the current Turkish average wholesale electricity price of 7.9 cents per kWh. Turkish energy minister Hilmi Guller told a press conference that AtomStroyExport had submitted a revised price "linked to world economic developments". Although it would be unorthodox for a bid to be revised once submitted in the tender process, AtomStroyExport's is the only bid on the table and Guller suggested that there would be room for bargaining. The revised bid would be opened and assessed by Turkish state electricity company TETAS who would assess it before passing it on to the country's cabinet for approval. No details of the revised bid have been released.

Turkish plans call for the country's first nuclear power plant to be operational by 2014, with proposals for 10-12 reactors by 2020 but would-be reactor builders appear to be treading carefully. Although six parties participated in the tendering process for the country's first nuclear reactor, AtomStroyExport's consortium was the only one actually to submit a bid.

**World Nuclear news, 20 January 2009**

**Australia : no nukes to cut carbon emissions.** The Australian government will not choose for nuclear power to help tackle climate change. The Australian Academy of Technological Sciences and Engineering - representing engineers and scientists - urged to do so in a report, calling the government to spend A\$6 billion on researching ways to slash the carbon emissions from electricity generation. The academy's report says no single technology will solve climate change, and takes a look at everything from nuclear power to clean coal and renewable energy.

Federal Energy Minister Martin Ferguson responded by saying the government was committed to meeting its greenhouse gas reduction targets without turning to nuclear power. "It is the government's view that nuclear power is not needed as part of Australia's energy mix given our country's abundance and diversity of low-cost renewable energy sources," he said. "The government has a clear policy of prohibiting the development of an Australian nuclear power industry." The report's author Dr John Burgess said he was not disappointed by the minister's comments on nuclear power. "I guess what we're slightly concerned about is that without nuclear energy the other technologies have to work," Dr Burgess said.

The statement is important as the world is starting to prepare for the crucial Climate talks in Copenhagen, Denmark, December this year. If nuclear power will not get the support of major players (ie. financial state aid, subsidies via post-Kyoto flexible mechanisms as CDM and the Carbon Trade schemes) it will be considered and received as a major knock-out to the nuclear industry.

**Business Spectator, 16 January 2009**

**Russian economic crisis decreases nuclear safety.** The nuclear industry in Russia is being negatively affected by the country's economic crisis; and the situation is expected to worsen in 2009. This is according to a recently released annual report by the state nuclear regulatory body. Ongoing job cuts at nuclear facilities include the personnel directly responsible for safety control. Activists call on the Russian government to quickly adopt a plan to insure public safety and nuclear security. The deteriorating social and economic situation in Russia is likely to result in significant drop of nuclear safety level at many nuclear facilities. Some nuclear facilities have already seen jobs cut because of reduced national income due to declining oil prices and the global recession. It is possible that further cut jobs in Russians and may bring back the nuclear proliferation problems related to illegal trade of radioactive materials. These radioactive materials can be used for building a "dirty bomb". According to governmental report, obtained by Ecodefense, staff cuts have been underway since 2007.

According to the recently released annual report written by the Russian nuclear regulator, Rostekhnadzor, there have been "job cuts at facilities responsible for nuclear-fuel cycle of personnel responsible for safety control and maintenance". The report also criticises nuclear facilities management for "not paying enough attention to ensuring nuclear safety". In a disturbing criticism of itself, Rostekhnadzor reports that it doesn't have enough safety inspectors to do its own job properly.

**Press release Ecodefense, 23 December 2008**

## 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](http://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](http://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

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

**Editorial team:** Dirk Bannink and Peer de Rijk.

With **contributions** from: WISE Uranium, WISE Amsterdam, Greenpeace EU Unit and Laka Foundation.

**Next issue** of the Nuclear Monitor (#683) will be mailed out on February 12, 2009.

## 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](mailto:wiseamster@antenna.nl)  
Web: [www.antenna.nl/wise](http://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](mailto:nirsnet@nirs.org)  
Web: [www.nirs.org](http://www.nirs.org)

### NIRS Southeast

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

### WISE Argentina

c/o Taller Ecologista  
CC 441  
2000 Rosario  
Argentina  
Email: [wiseros@ciudad.com.ar](mailto:wiseros@ciudad.com.ar)  
Web: [www.taller.org.ar](http://www.taller.org.ar)

### WISE Austria

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

### Austria

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

Email: [post@atomstopp.at](mailto:post@atomstopp.at)  
Web: [www.atomstopp.com](http://www.atomstopp.com)

### WISE Czech Republic

c/o Jan Beranek  
Chytlaky 24  
594 55 Dolni Loucky  
Czech Republic  
Tel: +420 604 207305  
Email: [wisebrno@ecn.cz](mailto:wisebrno@ecn.cz)  
Web: [www.wisebrno.cz](http://www.wisebrno.cz)

### WISE India

42/27 Esankai Mani Veethy  
Prakkai Road Jn.  
Nagercoil 629 002, Tamil Nadu  
India  
Email: [drspudayakumar@yahoo.com](mailto: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](mailto:ecodefense@online.ru)  
Web: [www.antiatom.ru](http://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](mailto:wise@wise.sk)  
Web: [www.wise.sk](http://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](mailto:coordinator@earthlife-ct.org.za)  
Web: [www.earthlife-ct.org.za](http://www.earthlife-ct.org.za)

### WISE Sweden

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

### WISE Ukraine

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

### WISE Uranium

Peter Diehl  
Am Schwedenteich 4  
01477 Arnsdorf  
Germany  
Tel: +49 35200 20737  
Email: [uranium@t-online.de](mailto:uranium@t-online.de)  
Web: [www.wise-uranium.org](http://www.wise-uranium.org)

# WISE/NIRS NUCLEAR MONITOR

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

PRINTED MATTER  
MATERIE IMPRIME



TPG Post

Port betaald