

# NUCLEAR MONITOR

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## Editorial

In this issue of the Nuclear Monitor we are pleased to present Peter Diehl's annual review of uranium mining issues. The WISE Uranium Project – [www.wise-uranium.org](http://www.wise-uranium.org) – is a unique and remarkable resource. Annual uranium reviews stretching back to 1998 are posted at [www.wise-uranium.org/indexu.html](http://www.wise-uranium.org/indexu.html)

In this issue we also look at the depressed uranium market, and the Nuclear News section has updates from Japan, France, Germany and Vietnam.

Feel free to contact us if you have feedback on this issue of the Monitor, or if there are topics you would like to see covered in future issues.

Regards from the editorial team.

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## Tough times for the uranium industry

**Author:** *Jim Green – Nuclear Monitor editor*

**NM798.4444** In the last issue of *Nuclear Monitor*, we noted that some nuclear insiders and lobbyists are starting to confront the reality that the global pattern of nuclear power stagnation is likely to continue. With the number of ‘operable’ power reactors declining from 443 to 437 from January 2005 to January 2015, the rhetoric about a nuclear renaissance is becoming increasingly implausible.

Former World Nuclear Association executive Steve Kidd, for example, states that the “picture of the current reactors gradually shutting down with numbers of new reactors failing to replace them has more than an element of truth given the recent trends.”<sup>1</sup>

Likewise, in a January 28 article for *Nuclear Engineering International*, nuclear economics consultant Edward D. Kee is downbeat about prospects in the US: “The US nuclear power industry geared up a decade ago for a nuclear renaissance that did not happen and is not likely to happen. ... Today, only five reactors are under construction in the US. ... Aside from these projects, no new US nuclear projects are expected to start construction in the next

decade or longer. ... The US nuclear power industry will likely face unfavourable electricity industry conditions for another 20 years or longer.”<sup>2</sup>

Similar opinions about the uranium industry are becoming increasingly common. Uranium and energy consultants Julian Steyn and Thomas Meade wrote in *Nuclear Engineering International* last October: “The uranium market is characterised by oversupply, which is forecast to continue through most the current decade. The oversupply situation has been exacerbated by the greater-than-initially-expected decline in demand following Fukushima as well as the increase in primary supply during the same period. Existing production capacity and output from mines under development could cause total supply to exceed demand through the year 2020.”<sup>3</sup>

And in November, investment strategist Christopher Ecclestone from Hallgarten & Company wrote: “There has indeed been a nuclear winter verging on an Ice Age over the last few years with bad news heaped upon bad news within the context of a pretty dismal financing situation for



Lizards Revenge protest at Olympic Dam (Roxby Downs) uranium mine, South Australia, July 2012.

mining all around. ... The yellow mineral had made fools and liars of many in recent years, including ourselves.”<sup>4</sup>

Still, there is some hype around uranium, some of it based on implausible projections of nuclear growth. The Seeking Alpha website, for example, claims that uranium demand “is set to soar over the next 15 years as the number of reactors worldwide more than doubles from today’s 437, with 557 more reactors already in the works.”<sup>5</sup>

But even those prone to hype are mostly arguing that the uranium industry has to pick up because it couldn’t get any worse. Thus uranium mining executive Jim Paterson wrote in December: “I believe it is an absolutely stunning time to be an investor in our business. But not stunning like how you feel after being punched in the nose repeatedly for almost four years, as participants in our industry have been. Rather, the valuations of the companies in the uranium sector are so deeply discounted, while the decade’s long runway to demand growth is so clearly marked in front of us, that the opportunity for future gains is stunning.”<sup>6</sup>

### Massive stockpiles

Jim Paterson emphasises China’s “staggering” nuclear power growth plans. He forgets that China has a history of failing to meet nuclear power projections and no hope of meeting the current target of 58 gigawatts (GW) by 2020.<sup>7</sup> And he ignores the fact that China has amassed a huge uranium inventory.

According to Australian investment bank Macquarie, there are “serious question marks” about China’s uranium requirements: “China is clearly the most positive story globally when it comes to nuclear-power-

capacity expansion. The concern, however, is that China has already procured a substantial amount of uranium well in excess of what it has consumed and that this advance purchasing might limit its need to enter the market to source material over the next few years.”<sup>8</sup>

Macquarie believes that China has enough uranium stockpiled to meet domestic demand for about seven years at forecast 2020 consumption rates – which is around three times greater than the current consumption rate.<sup>8</sup>

China is not the only country with large stockpiles. Raymond James analyst David Sadowski said in March 2014 that “many utilities are sitting on near-record piles” of uranium.<sup>9</sup> Japan is estimated to have stockpiles of around 100 million pounds (or 45,000 tonnes) of uranium oxide.<sup>10</sup> To put that in perspective, world uranium requirements for power reactors last year amounted to around 171 million pounds (78,000 tonnes). It will likely take a decade or more before Japan’s stockpile is consumed given the protracted nature of the reactor restart process.

RBC Capital Markets analysts said in June 2014 that worldwide supply currently exceeds demand, and that it does not expect the uranium industry’s situation to improve until at least 2021 because of accumulated inventories.<sup>11</sup>

With stagnant demand and large stockpiles, uranium miners are left clutching at straws. Some hope that supply from Russia might be curbed in response to Western sanctions, thus breathing some life into the uranium industry elsewhere. Some hope that dwindling secondary supply sources – in particular, the end of the US–Russia Megatons to Megawatts uranium downblending program – will breathe life into the uranium



Mock radioactive waste barrel at Darwin Port, Northern Territory, Australia.

industry. But the Megatons to Megawatts program ended a year ago and has had little or no impact.

David Sadowski noted in August 2014: “[T]he end of the Megatons to Megawatts high-enriched uranium (HEU) deal was long anticipated to usher in a new period of higher uranium prices. But the same plants that were used to down-blend those warheads can now be used for underfeeding and tails re-enrichment. In this way, the Russian HEU-derived source of supply that provided about 24 million pounds (24 Mlb) to the market did not disappear completely; the supply level was just cut roughly in half.”<sup>12</sup>

And if there was a shortfall, surplus weapons material is just one of the secondary sources that can reduce demand for primary mine production. Other secondary sources are underfeeding at enrichment plants (getting more uranium-235 from a given volume of uranium ore), re-enrichment of tails material, government and commercial inventories, and uranium recycle from reprocessing plants.

## Rio Tinto

Rio Tinto has established itself as one of the uranium industry’s underperformers. The company used to be

one of the world’s top five uranium producers, along with Kazatomprom, Cameco, AREVA and ARMZ/Uranium One.<sup>3</sup> No more, due to problems at the Ranger mine (Northern Territory, Australia) and the Rossing mine (Namibia), including leach tank failures at both mines in December 2013.

Energy Resources of Australia (ERA), 68% owned by Rio Tinto, operates the Ranger mine. ERA recorded a loss of A\$188 million (€130m; US\$147m) in 2014<sup>13</sup>, with losses over the past five years totally A\$500 million (€345m; US\$390m).<sup>14</sup> ERA had to buy uranium on the spot market last year to cover contract shortfalls in the aftermath of the leach tank failure.<sup>15</sup>

The open pit mine at Ranger has been exhausted and ERA is milling ore stockpiles and also hoping to develop the Ranger 3 Deeps underground mine project. The company – notorious for its defeated attempt to mine uranium at Jabiluka in the late 1990s despite the unanimous opposition of Mirarr Aboriginal Traditional Owners – will decide this year whether to proceed with Ranger 3 Deeps. If ERA cancels the project, processing of stockpiles will be complete in two years, after which there will be no uranium mining or milling in the Northern Territory.

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# Uranium Mining Issues: 2014 Review

Author: Peter Diehl – WISE Uranium

1. Uranium price
2. Uranium exploration projects
3. Uranium mine development projects
4. Alternate uranium recovery projects
5. Issues at operating uranium mines
6. Abandoned mines issues
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8. Legal and regulatory issues
9. Uranium trade and foreign investment issues
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## 1. Uranium price

**NM798.4445** During the first quarter of the year, UxC's weekly spot price (in US\$/lb U3O8) remained close to its first value of \$34.65. It then fell to approx. \$28, where it remained during June and July. Subsequently it increased until reaching a sharp peak at \$44.00 on Nov. 17, from where it then declined to its year-end value of \$35.50, not very far from the value at the beginning of the year.

So, once again, the uranium price remained below the lower bound of approx. US\$60–70 per lb U3O8 required for the profitability of many of the mine projects currently under consideration or under development, sending the already battered uranium industry into some sort of hibernation mode – not counting the cackle of all kinds of charlatans around the November peak.

Oddly enough, though, other than in the preceding years, we noticed no further companies removing the term “uranium” from their names. On the contrary, one company even added the U-word to its name, which then became “NX Uranium, Inc.”. This makes, however, sense, if the name is correctly read as “Nix Uranium, Inc.”

## 2. Uranium exploration projects

### **Moratoria/Bans (establishing/extending/keeping):**

- In British Columbia, Canada, a settlement agreement was closed on the C\$30 million government payoff for the Blizzard deposit claim, pre-existing to the province's anti-uranium policy.
- In Québec, the inquiry commission looking into the impacts of proposed uranium mining held hearings all over the province. A temporary moratorium remains in effect until the commission's task is completed.
- Meanwhile, Strateco Resources Inc. claimed C\$190 million in damages from the Québec government for losses with its Matoush uranium exploration project.

- In the US, a court denied a mining company in May the payout for the loss of expected profits over the Grand Canyon uranium mining ban imposed in 2012. In September, a federal court upheld the ban; the mining industry appealed that ruling, however.

### **Moratoria/Bans (lifting/weakening):**

- In Denmark, a demonstration was held in Copenhagen in August against proposed uranium mining in Greenland. In Greenland, the opposition called in November for a referendum on the country's uranium policy, after the newly elected government had lifted the 25-year old zero-tolerance policy in a narrow vote in October 2013. An opinion polled showed that a majority want such a referendum.

### **Exploration issues:**

- In Colorado, US, future development of uranium mines in the San Miguel Basin could pose a threat to an already small and vulnerable population of Gunnison sage-grouse, according to findings of the Fish and Wildlife Service.
- In Bolivia, a uranium discovery was announced in the Santa Cruz department.
- In Sweden, uranium exploration ended in northern Billingen, Västergötland, while a court upheld the license for uranium exploration in Oviken, Jämtland.
- In the Czech Republic, the Ministry of Environment again rejected uranium exploration at Osecná-Kotel in North Bohemia.
- In Slovakia, the renewal of the Kurisková exploration licence was approved in January 2014 despite opposition. In February, the Kosice City Council and the Kosice Region Council called the government to withdraw from a Memorandum of Understanding on the development of the Kurisková uranium mine.

In March, 300 people held a protest against the proposed mine. In December, the company requested an extension of its exploration licence for rare earth metals; opponents suspect that this is to circumvent a local referendum on the project. With newly enacted legislation (see below), such a referendum has become mandatory for the approval of any uranium mines in the country.

- China announced the discovery of more uranium deposits around the Daying uranium mine in its Inner Mongolia Autonomous Region.
- In Nepal, a radiometric ground survey located a potential uranium deposit in the Upper Mustang region near the China border.
- In Australia, the government of New South Wales invited six companies to apply for the right to explore for uranium in the state, one of which oddly enough denied any interest in uranium. A 26-year-old ban on uranium exploration had been repealed by the NSW parliament in 2012.
- In Queensland, Paladin Energy Ltd announced a massive write-down on its Valhalla and Mt Isa North properties, although the state had ended its decades-long ban on uranium mining in 2012.

**Environmental opposition against uranium exploration:**

- In Northern Saskatchewan, Canada, a group of Dene Trappers blocked a highway in November, fighting for their livelihood and the environment and protesting against mineral and oil exploration.
- In Québec, a Regional Directorate of Public Health committee report confirmed worries about environmental impacts of proposed uranium mining in the Sept-Îles area. In September, First Nations in Québec reaffirmed their opposition to uranium mining, and in November, Northern Québec Cree held a 850 km trek to protest against uranium mining.
- In south-western Poland, a community continues the fight against uranium exploration at Kopaniec despite an unfavourable court decision.
- In Mongolia, a demonstration was held in Ulaanbaatar in June against uranium extraction in the country.

**Positive preliminary economic assessments:**

Positive preliminary economic assessments, preliminary feasibility studies, or scoping studies were announced for the following uranium mine projects – however, all of them assume selling prices way above current market prices:

- Anderson uranium mine / heap leach project in Arizona,
- Slick Rock uranium and vanadium mine project in Colorado,
- Laguna Salada near-surface uranium deposit in Argentina (the company boldly claimed that “the project would have a healthy operating margin even at current uranium prices”, although a uranium price of \$60/lb U3O8 is assumed and the ore grade is extraordinarily low at 0.0051% U)

- Reguibat mine project in Mauritania,
- Madaouéla mine project in Niger,
- MMS Viken multi-metal mine project in Sweden,
- Carley Bore in situ leach (ISL) project in Western Australia.

**3. Uranium mine development projects**

**A license application for a new uranium mine was filed for the following project:**

- Burke Hollow ISL mine project in Texas.

**Mining/milling licenses were issued for:**

- Ross ISL mine project in Wyoming.
- Dewey-Burdock ISL mine project in South Dakota.

**Two mine development projects were temporarily suspended due to the unfavourable market situation (in addition to those already suspended in previous years):**

- Cameco’s Millennium mine project in Saskatchewan,
- Areva’s Imouraren mine project in Niger, where Areva lost confidence in the uranium reserves (previously announced ‘proven reserves’ were degraded to ‘probable reserves’).

**Two uranium mine development projects were abandoned or terminated due to the unfavourable market situation:**

- Energy Fuels’ Lower Gas Hills open pit / heap leach mine project in Wyoming,
- Wildhorse Energy Ltd’s Mecsek Hills mine project in Hungary.

**Projects currently under development, or being prepared for development:**

In Canada:

- In January, the French anti-nuclear network ‘Sortir du nucléaire’ handed French Ministers a petition with 30,000-signatures against Areva’s Kiggavik mining project near Baker Lake, Nunavut. In October, Areva submitted its Final Environmental Impact Statement on the project.
- In September, a lawsuit against the deal concluded by Cameco and Areva with the northern community of Pinehouse in Saskatchewan was dismissed; the deal provides an estimated C\$200 million in benefits to the community.
- After years of delays, ore production finally began at Cameco’s Cigar Lake high-grade mine in Saskatchewan in March, but had to be suspended again in July due to a freezing problem; ore production resumed in September.

In the USA:

- In July, the Navajo Nation Council reversed a standing committee resolution that allowed Uranium Resources Inc. access to its Church Rock / Crownpoint ISL mine site in New Mexico. In November, the Nuclear

Regulatory Commission (NRC) put the license renewal for the project on hold to give the company time to complete its discussions with the Navajo Nation Council.

- In February, the Bureau of Land Management (BLM) approved Cameco's Gas Hills ISL project in Wyoming.
- In March, Energy Fuels Inc. announced plans for an open pit mine with heap leaching at Juniper Ridge in Wyoming.
- In April, the NRC issued an operating licence for the Ross ISL project in Wyoming; in July, an NRC Board announced its decision to grant intervenors a hearing.
- In April, the Nichols Ranch ISL mine in Wyoming started operation; the uranium-loaded resin is sent to Cameco's Smith Ranch plant for further processing.
- In April, the NRC issued a license for Powertech Uranium Corp.'s Dewey-Burdock ISL mine project in South Dakota. The Oglala Sioux Tribe then invoked federal treaties and international agreements against the mine, and an NRC Board issued a temporary stay against the operating license. In August, an NRC Board ruled that Powertech must release geological survey data for the mine. In October, an Environmental Protection Agency (EPA) assessment found radioactive contamination at abandoned uranium mines in the project area of the proposed Dewey-Burdock uranium mine (see below).
- The Forest Service issued a favourable draft decision for the La Sal mine in Utah.
- In July, Energy Fuels Inc. announced the sale of its Piñon Ridge uranium mill license and several mining assets in Colorado. In September, a Denver district judge suspended the license to build the Piñon Ridge uranium mill again, as the state's hearing process did not comply with the requirements.
- The EPA partly withdrew the aquifer exemption for the Goliad ISL mine project in Texas.

#### In Central/South America:

- In April, public comment was invited on the Environmental Impact Assessment (EIA) for the Itataia uranium/phosphate mine project in Santa Quitéria, Ceará, Brazil. In July, the hearings on the project were postponed.
- In March, protestors against a uranium mining project in Quebrada de Alipán blocked a highway in La Rioja, Argentina; they blamed the project for a water shortage experienced in the area.
- An Environmental Impact Study was presented for the Sierra Pintada mine in Mendoza, Argentina.
- Residents filed an appeal to the Supreme Court to prevent mining in the UNESCO World Heritage area of Quebrada de Humahuaca in Jujuy, Argentina.

#### In Africa:

- The National Environmental Management Council (NEMC) of Tanzania has decided that the Madaba

project which is located in the World Heritage Selous Game Reserve does not require a full Environmental Impact Assessment.

- Denison Mines further wrote down the value of its Mutanga mine project in Zambia.
- The Letlhakane mine in Botswana will be opened in 2016, according to the Botswana Chamber of Mines.
- In January, public comment was invited on the Environmental Impact Assessment for the heap leach pilot plant at Bannerman Resources' Etango mine project in Namibia. In September, contracts were awarded for the heap leach pilot plant.
- Areva announced that it has no plans to restart its mothballed Trekkopje mine project in Namibia.
- In May, the Chinese-owned Husab mine (formerly Rössing South) in Namibia was commissioned. Cameco Corp. has shown interest in buying offtake output from the mine. In August, construction of a sulfuric-acid plant was to start at the mine.
- Deep Yellow Ltd plans to develop the Tubas Sand mine in Namibia as an interim standalone project, until its Omahola project would come on stream. For the latter, heap leaching is being eyed now as the preferred development strategy.
- Construction of Forsys Metals Corp's Valencia mine in Namibia is to start in early 2015.
- In May, the first consignment of uranium was shipped from Sibanye Gold Ltd's Ezulwini plant in South Africa.

#### In Europe:

- In Greenland, the plan for an overseas refinery for the rare earth / uranium concentrates to be produced at the proposed Kvanefjeld mine was abandoned. Greenland Minerals and Energy Ltd now considers that the most suitable location for the hydrometallurgical refinery is in Greenland, adjacent to the mine and concentrator.
- The Czech government announced in March that it will consider reopening the Brzkov mine in the Vysocina region. In September, a demonstration was held against the re-opening of the mine. A petition against the mine project was supported by over 1,500 people. In December, the Czech Cabinet approved the preparation of a study on possible uranium mining in Brzkov.
- In Spain, a mining licence was granted in April for Berkeley Resources' Retortillo deposit in Salamanca. In December, 115,000 signatures against the project were handed over to the Ministry of Industry, and a protest march was held in Retortillo.

#### In Asia:

- Jordan plans to develop its first uranium deposit in 2015; exports are expected by 2020.
- In India's north-eastern state of Meghalaya, neighbouring villages urge the start of uranium mining in Kylleng-Pyndeng-Sohiong, while regional parties and the District Council oppose the project.

- In Andhra Pradesh, groundwater contamination is expected to increase beyond standards once mining commences at the Lambapur-Peddagattu project, researchers say.

In Australia:

- Areva is suing the Australian government over the inclusion of the Koongarra uranium deposit in Kakadu National Park (Northern Territory).
- The Queensland government invited tender for reopening the abandoned Mary Kathleen uranium mine.
- Cameco submitted a new referral with a doubled production rate for its Yeelirrie mine project (Western Australia).
- Comments were invited on the Environmental Scoping Document for Energy and Minerals Australia Ltd's Mulga Rock mine project (Western Australia).
- The licensing process was initiated for the Millipede and Lake Maitland extensions of Toro Energy Ltd's Wiluna mine project in Western Australia. Wiluna Martu Elders have condemned the move to expand the yet unrealised Wiluna mine plan into a much larger uranium precinct spanning 100 km and which will destroy ecologically sensitive lake systems.
- Cameco's Kintyre mine project in Western Australia obtained state environmental approval; environmental groups filed an appeal (which was rejected in January 2015).
- The Beverley Four Mile ISL mine in South Australia, majority-owned by General Atomics' subsidiary Quasar Resources, started operation, while operations at the nearby Beverley Four Mile mine were put on hold due to low prices.

#### **4. Alternate uranium recovery projects**

##### **By-product recovery of uranium from mining primarily for other ores:**

- Uranium recovery is planned for the Charley Creek Rare Earth Project in the Northern Territory (Australia).
- Talvivaara's Sotkamo mine in Finland, where uranium recovery is planned as a by-product from nickel mining, still struggled with the aftermath of the major gypsum pond leak that occurred in 2012. In February, an investigation report on the pond leak blamed the company and the authorities. Cameco announced that it wrote down its investment in the uranium recovery at the mine. In March, a serious release of hydrogen sulphide occurred at the mine's processing plant. In April, Talvivaara received a (not yet final) environmental permit decision for the uranium recovery at the mine. In September, criminal proceedings started after reports that Talvivaara mine directors ignored toxic-leak warnings before the gypsum pond spill. In November, Talvivaara Sotkamo announced that it will apply for bankruptcy.

#### **5. Issues at operating uranium mines**

##### **Mine expansion projects delayed because of the low uranium price:**

- The development halt of new well fields at the Willow Creek ISL mine in Wyoming continues for another year.
- The Stage 4 expansion of Paladin Energy's Langer Heinrich mine in Namibia was postponed.

##### **Planned expansion of existing uranium mines and mills, with licensing processes at various stages:**

- In October, the McClean Lake mill produced the first uranium concentrate from ore mined at the Cigar Lake mine in Saskatchewan.
- Uranerz Energy submitted a license application for the Jane Dough ISL project as an extension of its Nichols Ranch mine in Wyoming.
- At the Caetit  site in Bahia, Brazil, a new uranium mining area is in the licensing process.
- The Krasnokamensk mine in Russia starts a project for heap leaching and block in-situ leaching of low-grade deposits.
- New deposits are under development for in situ leaching at the Vitimsky mine in Buryatia, Russia.
- The Draft Environmental Impact Statement for the Ranger 3 Deeps Underground Mine in the Northern Territory, Australia, was made available for comment.
- A heap leach trial to achieve lower processing cost at the Olympic Dam (Roxby Downs) mine expansion project in South Australia obtained an environmental waiver.

##### **Natural forces affecting operating uranium mines and mills:**

- In March, the Inkay ISL mine in Kazakhstan suspended operation due to floodings.

##### **Environmental issues at operating uranium mines and mills:**

- In February, a spill continued unnoticed for nine days at Uranium One's Willow Creek ISL mine in Wyoming. In December, the NRC issued a Notice of Violation to Uranium One USA Inc. for failures at the mine.
- In May, an injection well at Uranerz Energy's Nichols Ranch ISL mine in Wyoming was found to be still in use after failing a mechanical integrity test in February. In October, the state regulator issued a Notice of Violation over two spills at the mine. Uranerz Energy Corp. agreed to pay a US\$5,000 penalty.
- A freeboard exceedance of holding ponds at Ur-Energy's Lost Creek ISL mine in Wyoming went unnoticed for six weeks.
- In April, the Grand Canyon Trust sued Energy Fuels over excessive radon emissions and other environmental issues at the White Mesa uranium mill in Utah. In October, the Ute Mountain Tribe and environmentalists opposed the relaxation of EPA uranium mill tailings standards, affecting the

**DANGER** **ABANDONED URANIUM MINES**

**10,400** Number of abandoned uranium mines the Environmental Protection Agency (EPA) estimates there currently are in the U.S.

**50 YEARS** How long many of these hazardous mines have been abandoned.

**HUNDREDS OF THOUSANDS OF YEARS** How long uranium tailings remain dangerously radioactive and extremely harmful to living things.

**75% On Public & Tribal Lands.** They do not know the exact number or location of them all.

**10 MILLION PEOPLE ARE ESTIMATED TO LIVE WITHIN 50 MILES OF A RECORDED MINE.** A private abandoned, open pit uranium mine about 200 meters from an elementary school in Ludlow, South Dakota, emits 1770 microRems per hour, more than 4 times as much as is being emitted in many locations evacuated long term as a result of contamination by the Fukushima nuclear power plant disaster in Japan.

**CONTAMINATED WATER** Radioactive waste from open mines & tailings piles contaminates drinking water tables, rivers, lakes, & streams. Uranium mining & milling near the Grand Canyon have contaminated the Colorado River.

**WIND-BLOWN RADIOACTIVE DUST** threatens the health of nearby residents; if inhaled, it can cause lung cancer.

**TOXIC NATIONAL TREASURES?** *Chairman White Fico, Defenders of the Black Hills*

**5 WELLS & 15 SPRINGS** in the Grand Canyon contain EPA-exceeding levels of uranium from multiple abandoned mines.

**169 ABANDONED OPEN MINES** 40 miles southwest of Mount Rushmore

**25 MILLION** Number of people who depend on the Colorado for drinking water. San Diego, Las Vegas, Phoenix, & Los Angeles; some the cities that rely on the Colorado for drinking water.

**1/2** That is approximately the population of the Western U.S.

**That's about 1 in 7 people in the Western U.S.**

**Mining Corporations Walked Away From Their Clean Up Responsibilities**

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mill site. In December, the group Uranium Watch released findings of unacceptably high levels of radon emissions at the site.

- Conservation groups urged the Bureau of Land Management (BLM) to suspend operations at the Pinenut mine near the Grand Canyon in Arizona in response to groundwater contamination.
- Argentina's National Nuclear Energy Commission (CNEA) was fined for negligence in avoiding discharges from the idle Sierra Pintada uranium mill site in Mendoza.
- In November, NGOs warned Paladin Energy against a planned release of tailings water from the Kayelekera uranium mill in Malawi into a river used for drinking water.
- In January, Rio Tinto's Rössing mine in Namibia resumed operation after the leach tank failure in December 2013.
- In March, it became known that the provisions of Energy Resources of Australia (ERA) for the rehabilitation of its Ranger mine in the Northern Territory, Australia, may be insufficient. Operation of the open pit mine was halted due to resource depletion in December 2012, while the mill is still processing stockpiled ore. In April, ERA parent company Rio Tinto refused a guarantee to cover the rehabilitation cost.
- In June, processing operations of stockpiled ore resumed at the Ranger uranium mill after the December 2013 leach tank collapse. In July, an interim report concluded that the burst had caused no environmental impact. In October, the Australian government declared an independent expert report into the Ranger leach tank failure confidential and

declined to follow its recommendation on a review of the regulatory framework.

#### Uranium transport incidents:

- In February, uranium ore concentrate spilled in a transport accident near Paladin's Kayelekera mine in Malawi.
- In July, a uranium ore concentrate transport from Kazakhstan to France provoked protests during transit across Germany. In August and November, activists organised blockades of trains carrying uranium ore concentrate in and near Hamburg.

#### Miners' health issues at operating uranium mines and mills:

- The Nuclear Regulatory Commission issued a Notice of Violation for three license violations at Ur-Energy's Lost Creek ISL mine in Wyoming, involving worker exposure to yellowcake dust, among others.
- A health review of miners who worked in the 1970s at Rio Tinto's Rössing mine in Namibia is still at the scoping stage. Miners from this period are said to be dying of cancers and unexplained illnesses.
- The excessive radiation doses to workers at the Rozná underground mine in the Czech Republic increased in 2013 even further, with an average annual effective dose of 8.2 mSv and a maximum annual effective dose of 35.6 mSv.

#### Residents' health issues at operating uranium mines and mills:

- In August, a court ordered India's Union government to prepare a report on the radiation situation around the Jaduguda mine in Jharkhand, after concerns about radiation impacts with the local population had repeatedly been raised.

### **Supply issues at operating uranium mines and mills:**

- Niger launched the construction of a coal-fired power plant to supply cities and uranium mines in the north of the country with electricity.
- Areva's Trekkopje desalination plant in Namibia is to supply water to three other uranium mines.
- Rio Tinto's Rössing mine in Namibia is to construct a desalination plant of its own; a Draft Social and Environmental Impact Assessment was released for public comment.

### **Shutdown, downsizing, etc. of operating mines and mills due to poor economics:**

- In July, the production rate at Ur-Energy's recently opened Lost Creek ISL mine in Wyoming almost halved due to the low uranium spot price.
- In May, Paladin Energy's Kayelekera mine in Malawi suspended production until the uranium price recovers. In October, residents opposed the reopening of the mine under the current development agreement due to lack of benefit for the local district.
- In June, Rio Tinto's Rössing mine in Namibia announced job cuts and reduced production targets.
- The closure of the depleted Rozná mine in the Czech Republic is now foreseen for 2017.
- The complete production from the years 2014 and 2015 at the newly opened Four Mile ISL mine in South Australia is to be stockpiled in expectation of higher uranium prices.

### **Other issues at operating uranium mines and mills:**

- In May, protests were held at Cameco's Annual General Meeting in Canada, criticising the collaboration agreements with the English River First Nation and the Northern Village of Pinehouse Lake, the company's alleged tax evasion scheme via its Swiss subsidiary, and possible ill-effects of mining byproducts and waste on the environment in the long term.
- On September 8, the Nuclear Regulatory Commission issued a Notice of Violation to Uranium One for failure to follow procedures established to prevent pressure buildup in drums filled with yellowcake at the Willow Creek ISL mine in Wyoming. The procedures had been established after pressure build up in drums filled at Willow Creek had led to a contamination incident at Cameco's Blind River, Ontario, refinery on June 23, 2012.
- Only one day later, on September 9, pressure buildup in a drum filled with yellowcake at Willow Creek again caused a contamination incident at a conversion plant – this time in Metropolis, Illinois.
- In October, the Nuclear Regulatory Commission approved the processing of yellowcake from the mothballed South Australian Honeymoon mine at the processing plant of the Willow Creek ISL mine.
- In March, Black Range Minerals' plan to acquire Uranium One's idle Shootaring Canyon uranium mill

in Utah failed. The group Uranium Watch then called for the decommissioning of the mill after 30 years of "standby". Uranium One requested a six-month license extension and postponement of obligation to begin decommissioning for the idle mill. In August, Anfield Resources Inc. announced it will acquire the mill.

- In July, the Utah state regulator approved the processing of residues from the Midnite Mine in Washington as alternate feed at Energy Fuels' White Mesa mill. The Ute Mountain Ute Tribe filed a Petition to Intervene against this approval.
- In February, the New Mexico Supreme Court upheld the designation of Traditional Cultural Property status to Mount Taylor in New Mexico.
- In November, the Nuclear Regulatory Commission renewed the license for Cameco's Crow Butte ISL mine in Nebraska.
- In January and February, hundreds protested against Areva in Niger. In October, Niger finally renewed the uranium production agreement with Areva after protracted negotiations.
- The newly opened Chinese-owned Azelik mine in Niger is struggling with high cost and low output.
- In October, contract workers claimed unfair treatment at Paladin Energy's Langer Heinrich mine in Namibia.
- In April, cost reductions were announced for Russia's flagship Krasnokamensk mine which is unprofitable due to the low uranium price and decreasing productivity. In August, the mine started processing of subeconomic ore dumps for residual uranium. In November, two mines at Krasnokamensk were to resume operations after implementation of cost reductions and use of acid block in situ leaching.
- A joint venture between Kazakhstan's national atomic company Kazatomprom and Uranium One plans to launch scandium production at uranium mines in Kazakhstan.
- In September, mining at the Jaduguda mine in Jharkhand, India, stopped following a ministry order; the license had already expired in 2007. In December, the clearance for mining work was issued.
- In May, ore transport from the Bagjata mine in Jharkhand, India, was suspended, after rebels set a truck with ore on fire.
- India's government cited "public interest" for not divulging annual uranium production figures.
- Anti-uranium mining activist Salku Chaki was murdered on August 4. His body was found in the UCIL Turamdih colony in Jharkhand, India.
- In November, protests were held outside the annual meeting of BHP Billiton, owner of the Olympic Dam copper/uranium mine in South Australia.

## **6. Abandoned mines issues**

- In November, the Canadian Nuclear Safety Commission held a hearing on the licence application for the decommissioning of the former Gunnar mine site in

- Saskatchewan. A decision has not yet been published.
- A US EPA preliminary assessment found radioactive contamination at abandoned uranium mines in the project area of the proposed Dewey-Burdock mine in South Dakota (see above). The EPA is planning to conduct a site investigation to determine if hazardous substance releases from the abandoned mines are impacting sensitive environments.
  - In April, the US Department of Justice announced that, from a settlement with Anadarko Petroleum Corp., the Navajo Nation is to get more than US\$1 billion for the clean-up of about 50 abandoned uranium mines. The settlement gives another US\$179 million for the clean-up of the abandoned Riley Pass mine in South Dakota. In November, the settlement received final approval from a federal judge.
  - In May, a US Government Accountability Office report found that not all targets were met for the clean-up of a few uranium mining and processing sites that is currently being performed on the Navajo Reservation by several federal agencies. In August, the US EPA ordered the very first phase of clean-up work at four abandoned uranium mines in the Mariano Lake and Smith Lake areas on the Navajo Nation.
  - While relocation of Tailing No. 3 – one of the abandoned uranium mill tailings piles at Mailuu Suu in Kyrgyzstan – is ongoing, Tailing No. 5, the pile found to contribute the largest amount of uranium seepage to the Mailuu-Say river, is still unsecured. At Tailing No. 12, a government inspection found that two houses were built on top of the pile.
  - Remediation of the abandoned Shekaftar uranium mine dumps in Kyrgyzstan is “most urgent”, according to a scientific study. Several low-grade ore heaps and waste rock piles are located along the Sumsar-Say River. One heap is exposed to the erosion of the river throughout the year, while the bases of the others become flooded annually. In addition, a giant landslide is developing on the mountain slopes around the former uranium mine.
  - In Angren, Uzbekistan, local markets sell meat from cattle grazing on uranium mill tailings left abandoned in the mountain gorges between Angren and Yangiabad.
  - Australia’s Northern Territory is seeking A\$200 million from the Federal Government to rehabilitate the abandoned Rum Jungle mine site.
- A groundwater contaminant plume continues to spread off-site from the ANC Gas Hills uranium mill tailings site in Wyoming. In view of insufficient reclamation funds, an extension of the site boundary is envisaged as a creative low-cost response.
  - Natural flushing of the contaminated aquifer at the Riverton site in Wyoming may not be accomplished in the 100-year regulatory time frame.
  - The uranium concentration in a groundwater monitoring well at the Durango uranium mill tailings disposal site in Colorado still exceeds the standard, by a factor of two.
  - The NRC again demanded resumption of groundwater monitoring at the Durita uranium mill site in Colorado, finding that the state regulator’s permission to Hecla Mining Co. to discontinue the groundwater detection monitoring program and plug the wells was premature. The NRC demands Hecla install new monitoring wells.
  - The uranium concentration in a groundwater monitoring well at the Grand Junction uranium mill tailings disposal site in Colorado increases further, now exceeding the standard three-fold.
  - Contaminated alluvial and bedrock groundwater continues to leave the former Bluewater uranium mill site in New Mexico. However, a Department of Energy (DOE) report found that the uranium plume “does not present an imminent or foreseeable risk to community water systems”.
  - The DOE presented a plan for an improved active groundwater remediation at the former Monticello uranium mill tailings site in Utah, replacing the failed natural attenuation scheme.
  - The DOE discontinued the groundwater pump and treat scheme at the Tuba City uranium mill tailings site in Arizona due to ineffectiveness.

**Other USA decommissioning issues:**

- The clean-up plan for the former Midnite mine in Washington is under review by the EPA. The work is on track to begin next year.
- On May 7, 2014, the Colorado legislature approved a measure to ensure the clean-up of 30 years of groundwater contamination at Cotter Corp.’s closed Cañon City uranium mill. On August 27, 2014, heavy rains caused a mudflow at the mill site. An ATSDR Public Health Assessment report identified health hazards for residents living near the site, in particular from drinking water from private wells and from eating lots of home-grown fruits and vegetables.
- Any uranium mill tailings found in ongoing road construction in Durango, Colorado, have to be re-buried under the roadway, according to a special management plan.
- In September, the state approved a modified discharge permit for Homestake Mining Co’s Grants uranium mill site in New Mexico; community members have opposed the renewal and have repeatedly advocated for relocating the tailings pile.

**7. Decommissioning issues**

**In the USA:**

Again, not all is going well with the current groundwater restoration efforts at uranium mill tailings sites in the USA:

- Attenuation of radium concentrations in groundwater is not functioning as predicted at Umetco’s former Gas Hills uranium mill site in Wyoming, the Nuclear Regulatory Commission (NRC) found.
- The NRC is not convinced that the Shirley Basin South uranium mill tailings impoundment in Wyoming is not leaking.

- A study published in June showed that contaminants added to the soil by irrigation of waste waters at the Grants reclamation site are expected to migrate deeper almost unattenuated. In December, Homestake issued a closure plan for the irrigation areas used at Grants for the disposal ("land application") of groundwater with elevated levels of uranium and selenium.
- The Moab tailings relocation project in Utah received additional funding, allowing for an uninterrupted operation. As of the end of July, a total of 7 million short tons of mill tailings (44% of the initial amount) had been removed from the DOE Moab Project Site. On Nov. 20, a rockslide hit the train line used for the tailings relocation project – again.

#### **In Europe:**

- In March, a family was evacuated from their home in the Limousin area in France; the home was built with uranium mill tailings backfill and was used for childcare; later it was decided to completely pull it down.
- In July, the government released an inventory of dispersion and usage of waste from former uranium mines in the Limousin area.
- Uranium mine waste rock on a camping ground in the Pays-de-la-Loire region in western France was found to cause gamma dose rates up to more than 20 times background.
- A 3.7 MW solar park was constructed on the site of the former l'Écarpière uranium mill in western France.
- In May, about 70 miners from the former uranium mines at Urgeiriça in Portugal held a vigil in front of the official residence of the Prime Minister, again demanding compensation for the families of those who died from occupational diseases.
- The top plateau of Wismut's reclaimed Trünzig uranium mill tailings pile in Thuringia, Germany, is now being used for grazing by a horse breeder. The vegetative cover of the deposit thus remains open land, as requested by the Nature Conservation Authority.
- Groups in Thuringia have asked the state government for more efforts to locate the whereabouts of uranium mine waste material used for road construction and other purposes in Thuringia during the GDR era. So far, 370,000 tonnes have been located and disposed of, while the total amount used was around 1.9 million tonnes.
- The €6.5 billion in funds provided by the German government for the decommissioning of Wismut's uranium mines turned out to be not sufficient to cover longterm maintenance. It is expected that the total cost until 2040 will rise to €7.1 billion.
- According to Wismut's environmental monitoring, radon concentrations in part of the town of Niederschlema in Saxony have increased above the 80 Bq/m<sup>3</sup> target value as a result of rising radon release rates from reclaimed waste rock piles. The target value includes the background radon concentration and is meant to assure a 1 mSv/a dose

limit for the public. The increase of the release rates from the reclaimed piles has been observed over several consecutive years already. Wismut provides no discussion nor any proposals for remedies of the situation. According to the Saxon state regulator, the doses actually reach 3–5 mSv/a in certain local areas.

- The new European Union Basic Safety Standards are in parts less stringent than currently applicable regulations in the framework of the Wismut project and may water down the standards for clean-up of the remaining Wismut uranium mine sites in Germany. The new reference values are of particular concern for the effective dose to members of the public in certain areas of Niederschlema (see above).
- In September, dismantling of the surface facilities started at the Hamr underground mine and the Stráz pod Ralskem uranium mill site in North Bohemia, Czech Republic.
- The six remaining uranium mill tailings ponds in Mydlovary in South Bohemia are to be reclaimed within ten years.

#### **In Asia:**

- In September, the government of Tajikistan approved a national concept on the rehabilitation of uranium mill tailings for the years 2014–2024; the total amount of tailings in the country is more than 55 million tonnes.
- In October, test production of rare earths from Kazakh uranium mine residues commenced.

## **8. Legal and regulatory issues**

#### **In the USA:**

- In May, the US Department of Energy approved the Uranium Leasing Program, opening up 25,000 acres (101 sq kms) of land in western Colorado to uranium mining.
- In April, the US EPA released a proposed rule for revisions of radon emission standards for operating uranium mill tailings. The proposal would eliminate the numeric limit on radon emissions for pre-1989 impoundments, while it would establish a numeric minimum moisture content for heap leach piles, among others.
- In October, the US Occupational Safety and Health Administration invited comment on the management and permissible exposure limits for chemicals in the workplace: time to overcome the current anachronistic uranium exposure limits in workplace air that may lead to annual doses of 5 to 16 times the 20 mSv/a limit.

#### **In Africa:**

- In Tanzania, groups released a report calling for tight regulation of proposed uranium mining in the country.

#### **In Europe:**

- In January, the European Union issued a revised directive on basic radiation protection standards, which may water down standards for the clean-up of the remaining Wismut uranium mine sites in Germany (see above).



- In June, the Slovak Parliament approved a new law that allows uranium mining in Slovakia only if approved in referendums taking place in all affected municipalities.

#### **In Australia:**

- The Australian parliament passed a bill to open the Woomera weapons test range in South Australia to mining.
- After lifting the uranium mining ban in the state in 2012, the Queensland government now released a “modern and robust” framework for uranium mining.

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

### **Uranium trade**

- China imported 18,968 tonnes of uranium in 2013 alone (about three times current requirements).
- India has imported 4,458 tonnes of uranium since 2008, when the Nuclear Suppliers Group lifted its ban on nuclear trade with India.
- The US Department of Energy plans to sell up to 2,705 tonnes of surplus uranium per year until 2021.
- Uzbekistan plans to increase its uranium exports to South Korea; and Uzbekistan also plans to supply 2,000 tonnes of uranium to India.
- Paraguay offers to export uranium to Argentina.
- The Australia – United Arab Emirates agreement on uranium sales entered into force.
- In view of the Ukraine crisis, Australia halted uranium sales to Russia, while there are currently no contracts, though.
- The European Commission is probing a uranium supply contract with Russia for the planned Pyhäjoki nuclear power plant in Finland,
- Australia’s Macquarie Group buys the Deutsche Bank uranium book.

### **Proliferation issues and uranium trafficking**

- Australia signed an agreement with India on uranium exports; the former chief of Australia’s nuclear safeguards organisation raised doubts over the uranium deal. The agreement will be scrutinised by the Australian Parliament’s Joint Standing Committee on Treaties in 2015.

### **Foreign exploration, mining investment, and cooperation**

- France: Areva plans to mine uranium in Ukraine in cooperation with the Ukrainian company VostGOK.
- Turkey plans to invest in uranium mines in Niger.
- Russia and Kazakhstan signed a road map for the development of uranium deposits in Kazakhstan.

- Russia and Algeria signed a nuclear energy cooperation agreement, including uranium prospecting and mining.
- Uganda seeks India’s assistance to develop its uranium deposits.
- The government-owned Uranium Corporation of India Ltd. (UCIL) eyes stakes in overseas uranium mining companies.
- China Uranium Corporation acquired a 25% stake in Paladin Energy’s Langer Heinrich uranium mine in Namibia.
- China General Nuclear is looking to invest in Canadian uranium mines.
- More Chinese companies are gaining access to uranium properties abroad.

## **10. This and that**

- Other than in previous years, no new claim stakes were found on the Maybell uranium mill tailings disposal site in Colorado in 2013: is the end to this oddity a sign that those prospectors have finally come to their senses, or is this just an indication that they have lost the last glimmer of hope that the uranium price will ever recover in the foreseeable future?
- In February, a Paris court condemned the NGO Observatoire du nucléaire to pay penalties of several thousand Euros for “defamation” of Areva in a 2012 press release titled “Nuclear/corruption: AREVA offers a plane to the President of Niger ...” The NGO appealed the court decision. (This court opinion is quite surprising: how can it ever be possible to defame a company that has 181 entries in its Hall of Infamy on the WISE Uranium website?)
- Will uranium be extracted as a by-product of tunnel construction for the Tokyo-Nagoya Maglev train line in Japan? The route runs through mountains in Mizunami, Gifu Prefecture, that have 20 to 30 uranium deposits scattered beneath the area.
- Is nuclear-free New Zealand incidentally becoming a uranium miner? Uranium in phosphate nodules that Chatham Rock Phosphate intends to mine could threaten New Zealand’s nuclear-free reputation, the seafood industry has told the government.
- In February, the Mining Warden’s Court approved of the opposition of mining tycoon Andrew Forrest to uranium exploration by Cauldron Energy on his Minderoo ranch in Western Australia (Forrest is Australia’s richest man who made his fortune digging up iron ore). However (and we are now offering an exclusive glimpse of next years annual review) the state Minister for Mines and Petroleum overturned the Mining Warden’s decision on January 7, 2015, and allowed uranium exploration in the mining tycoon’s backyard. Forrest’s Minderoo understandably expressed its disappointment “at the minister’s decision to allow exploration by Cauldron Energy within the historical and environmentally fragile parts of Minderoo station”. Have we just found the next candidate for The Prime Minister’s Environmentalist of the Year Award?

## Children's lives after Fukushima

At the end of October 2014, I visited the Futaba area in Fukushima Prefecture, observed classes, met with the children and learned of the distress in the schools from teaching staff, including principals and assistant principals, and also from related officials such as the local superintendent of schools.

In April 2011 (April is the beginning of the academic year in Japan), a total of 70 schools in Fukushima Prefecture were temporarily closed because they were unable to restart, or had been temporarily relocated. Of these, 38 were elementary schools, 20 were middle schools, 11 were high schools and one was a special-needs school. With the exception of one elementary school, all of these temporary closures or relocations were due to the nuclear power station explosions. A total of 8,013 students and 1,582 school teachers and staff were affected.

Three years later, in April 2014, schools which are still not able to restart and remain temporarily closed are four elementary schools and two middle schools run by Namie Town. The teachers and staff have been reassigned to "additional posts" in different schools all across the prefecture. The number of Fukushima schools that have returned to the original location and have reopened is 15 elementary schools and eight middle schools. Besides these, 19 elementary schools and ten middle schools have borrowed classrooms in other schools, have been closed through amalgamation with other schools, or have reopened by relocating temporarily to private facilities.

Many of the schoolchildren who remained in Fukushima Prefecture are living in temporary housing and are spending an hour to 90 minutes each way in school buses getting to and from school. They leave their homes before 7 a.m. and return in the early evening or sometimes after nightfall. Fatigue is accumulating among the younger elementary school children. Sports activities are limited due to lack of or insufficient school yards. Moreover, the long commuting times mean that all kinds of activities cannot be carried out satisfactorily. Some of the teachers and school staff commute more than 70 km each way to their schools. This was supposed to happen for only one year, but already more than three years have passed. The teachers lamented the fact that there does not seem to be any end to this situation in sight.

– Yukio Yamaguchi, Co-director, Citizens' Nuclear Information Center (Tokyo). Abridged from *Nuke Info Tokyo No. 164, Jan/Feb 2015, [www.cnic.jp/english/newsletter/nit164/nit164articles/01\\_fukushima.html](http://www.cnic.jp/english/newsletter/nit164/nit164articles/01_fukushima.html)*

## "New" Japan Atomic Energy Commission inaugurated

Revisions to Japan's Act for the Establishment of the Atomic Energy Commission were made in June 2014 and went into effect on December 16. That day, the chairman remarked, "We are launching new Atomic Energy Commission activities." Never mind that it is called "new," the three committee members it comprises were appointed and began their activities in April, prior to the revisions. This is a strange way to arrange affairs, but Japan's government has become more disorderly since December 2012, when the Abe administration came into power, so this is par for the course.

The Atomic Energy Commission was shrunk from five members to three, and its operations were downsized on the basis of reconsiderations made by the previous administration, which we explained in NIT 152. Even though the administration changed hands, legal revisions were made in accordance with the previous administration's views.

Two of the three commission members are clearly supportive of nuclear energy, and they make no effort to hide it. The third specializes in uses of radiation. While she does not actively promote nuclear power, she expresses her ideas poorly. The chairman, Yoshiaki Oka, is a nuclear engineer and is on record in "Chairman's Remarks" at the beginning of his term as saying, "It is important that the excellent nuclear technology our country has cultivated and the hard-earned experience gained from TEPCO's accidents in Fukushima be utilized not only in Japan, but worldwide. Japan should lead the world in the field of nuclear energy."

Instead of creating new general principles for nuclear policy as the previous commission did, the Atomic Energy Commission drafted "Basic Concepts." The "Observations Used in Drafting the Basic Concepts" presented by Chairman Oka at the December 24 meeting of the commission, contains the statement, "How about a motto of 'Leading the World' (in top-notch R&D and world-class projects)?"

Vice-Chairman Nobuyasu Abe hails from Japan's foreign Affairs Ministry, with expertise in disarmament and nuclear non-proliferation, but he exhibits a surprisingly low level of awareness. At the annual meeting of the Japanese branch of the Institute of Nuclear Materials Management on November 22, 2014, Vice-Chairman Abe blithely remarked, "It is said that the increasing amounts of plutonium are a problem, but even if money in a bank increases, the risk of theft stays the same. This is a makeshift solution, but the amount of plutonium in storage is tallied at the end of the year, so it would be okay to begin reprocessing in January and use the plutonium before the end of the year so that the amount is reduced by year end."

*Reprinted from Citizens' Nuclear Information Center, Nuke Info Tokyo No. 164, Jan/Feb 2015, [www.cnic.jp/english/newsletter/nit164/nit164articles/07\\_nw164.html](http://www.cnic.jp/english/newsletter/nit164/nit164articles/07_nw164.html)*



### **Areva's 2014 revenue down 8%**

Areva says its 2014 revenue was €8.34 billion (US\$9.5 billion), down 8% from the previous year.<sup>1</sup> The company is expected to post a 2014 loss of at least €1 billion, perhaps much more.<sup>2</sup> Areva CEO Philippe Knoche said: "The year of 2014, particularly the second half, was a hard time for Areva."<sup>3</sup>

Areva's mining group took the largest hit in 2014, with revenue down €420 million (US\$479 million) on the previous year, with sales volumes down 28%. Revenue also fell at the back end of the nuclear cycle, with a 12.1% drop in the business area dealing with spent fuel and reprocessing.<sup>3</sup>

Areva warned that it expects to book significant write-downs of assets in its 2014 accounts. The company did not elaborate, but the troubled EPR reactor project in Finland is a likely candidate.<sup>1</sup>

Areva is reportedly drafting a plan to let EDF take a stake in some of its units (namely reactor exports and spent fuel reprocessing), thus providing a capital boost. The French state has an 87% stake in Areva and 84.5% in EDF.<sup>4</sup>

1. [www.reuters.com/article/2015/02/02/areva-results-idUSL6N0VC43B20150202](http://www.reuters.com/article/2015/02/02/areva-results-idUSL6N0VC43B20150202)

2. <https://uk.news.yahoo.com/arevas-losses-last-could-over-3-billion-euros-084340689--sector.html>

3. [www.world-nuclear-news.org/C-Areva-revenues-down-in-2014-0402151.html](http://www.world-nuclear-news.org/C-Areva-revenues-down-in-2014-0402151.html)

4. <http://uk.reuters.com/article/2015/02/05/areva-edf-idUKL6N0VF38J20150205>

### **EU court adviser says German nuclear tax compatible with EU law**

A German nuclear fuel tax is compatible with EU law, a European court adviser said on February 3, in a preliminary decision that could thwart efforts by utilities to recover billions of euros. The provisions of EU law "are not against such a tax", the adviser to the Court of Justice of the European Union (ECJ) concluded. The Court follows the opinions of court advisers in a majority of cases.

Last year, a Hamburg court declared the fuel tax illegal in another preliminary ruling, but requested advice from the ECJ. So far, German utilities have paid about 4.6 billion euros (\$5.2 billion) in nuclear fuel taxes.

<http://af.reuters.com/article/energyOilNews/idAFL6N0VD1J720150203>

### **Vietnam delays nuclear reactor program, again**

The government of Vietnam has pushed back the date for breaking ground on its first nuclear reactor by two years from 2017 to 2019. This delay comes on top of an earlier postponement that set the 2017 date. Other reports give a 2020–2022 start date.

Hoang Anh Tuan, head of the Vietnam Atomic Energy Agency, said the delay is necessary because the government isn't ready to manage the project, nor does it have a mature and independent nuclear safety and regulatory oversight agency.

Russia's Rosatom has a contract to build the first two of four planned 1200 MW VVER nuclear reactors at a Ninh Thuan, a coastal site. Most of the financing will be provided by a Rosatom loan. Vietnam also has an agreement with Japan Atomic Power to plan the development of a second 2200 MW power station in the same region.

<http://neutronbytes.com/2015/02/01/slow-growth-for-nuclear-energy-in-japan-vietnam/>

<http://blogs.wsj.com/frontiers/2015/01/23/vietnams-slowing-growth-and-safety-concerns-delay-nuclear-plans/>

## Nuclear Resister

The latest issue of *Nuclear Resister* is out now, with information about anti-nuclear and anti-war related arrests and peace prisoner support. Stories featured in the latest issue include:

Villagers and supporters on Jeju Island (South Korea) were arrested and injured during a crackdown and demolition of a protest site.

On January 29, Eve Tetaz and Nashua Chantal stood trial before US District Judge Stephen Hyles in Columbus, Georgia. The two had crossed onto Ft. Benning during the annual demonstration to close the School of the Americas. Tetaz received a \$5,000 fine while Chantal was sentenced to five years of probation.

On January 5, four protesters were arrested inside RAF Waddington in Lincolnshire while protesting the continuing use of armed drones.

Kathy Kelly, co-coordinator of Voices for Creative Nonviolence, turned herself in to the federal prison camp in Lexington, Kentucky on January 23. She will serve a three-month sentence for her June 1, 2014 protest of drone killings at Whiteman Air Force Base in Missouri.

On January 17, activists from the Ground Zero Center for Nonviolent Action blocked the main gate and staged a mock funeral to "mourn the death of the earth after nuclear annihilation" at the US Navy's West Coast Trident nuclear submarine base. Ten men and women were removed from the roadway and arrested.

On January 17, peace activists stood in front of the Lockheed Martin complex in King of Prussia, Pennsylvania. Five people blocked the main driveway entrance and were later cited for disorderly conduct by the police.

On January 10, Witness Against Torture and Code Pink marked the 14th anniversary of the opening of Guantanamo Prison with a torture protest on Dick Cheney's lawn. Two protesters were arrested on trespassing charges.

On January 16, a judge found Henry Stoeber not guilty of trespass during a protest at the Honeywell nuclear weapons plant in Kansas City, Missouri. The plant makes, procures and assembles 85% of the non-nuclear parts of nuclear weapons.

*To read more and to subscribe to the Nuclear Resister e-bulletin or the print edition, visit: [www.nukeresister.org](http://www.nukeresister.org)*

Meanwhile, anti-militarists are organising a mass lockdown at the Burghfield nuclear arms facility in the UK on March 2. The blockade is part of the non-violent direct action and campaigning against a new nuclear arms program. British nuclear arms are produced, maintained and stored in an Atomic Weapons Establishment in the village of Burghfield, located near the city of Reading. AKL, the Union of Conscientious Objectors Finland, is organising a bus trip to the event from Finland, picking up passengers from various cities including Stockholm, Copenhagen, Hamburg and the Hague.

*More information: [toimisto@akl-web.fi](mailto:toimisto@akl-web.fi), <http://actionawe.org/burghfieldlockdown>*

# WISE/NIRS Nuclear Monitor

The World Information Service on Energy (WISE) was founded in 1978 and is based in Amsterdam, the Netherlands.

The Nuclear Information & Resource Service (NIRS) was set up in the same year and is based in Washington D.C., US.

WISE and NIRS joined forces in the year 2000, creating a worldwide network of information and resource centers for citizens and environmental organizations concerned about nuclear power, radioactive waste, proliferation, uranium, and sustainable energy issues.

The WISE / NIRS Nuclear Monitor publishes information in English 20 times a year. The magazine can be obtained both on paper and as an email (pdf format) version. Old issues are (after 2 months) available through the WISE homepage: [www.wiseinternational.org](http://www.wiseinternational.org)

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