

# NUCLEAR MONITOR

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## Editorial

In this issue of the Monitor: we cover the nuclear power / climate change debates, recently reignited by James Hansen and other climate scientists, and by film-maker Robert Stone; we look at Rosatom's plans to build nuclear power plants in Bangladesh and Belarus, and its broader nuclear export efforts based on the 'BOO' (build-own-operate) model along with financing and spent fuel take-back; the Fukushima Fallout section covers the nuclear industry's never-ending efforts to dodge liability for nuclear accidents, and draft legislation in Japan targeting whistleblowers and journalists; and we report on a number of nuclear transport accidents and incidents including a truck fire in the US, a ship fire in Germany, and multiple problems with radioactive materials transport in Canada.

In the Nuclear News section, we have reports on a UN study which finds that children are at greater risk than adults for some cancers; problems with clean-up operations at US nuclear weapons sites; Areva's plans to mine uranium in Mongolia; illegal radioactive waste dumping in Italy and concerns that it is linked to increased cancer rates; depleted uranium protests; inadequate nuclear regulation in the UK; and storm damage to a UK nuclear plant.

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. Email: [monitor@wiseinternational.org](mailto:monitor@wiseinternational.org)

## Nuclear vs climate

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<http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo56.pdf>

Nuclear power is back in the climate headlines after climate scientist James Hansen was joined by three others in posting a public letter in which they jointly urge environmental organisations to stop opposing nuclear power.

**773.4360** In the letter they say that more nuclear energy is urgently needed and essential in the fight against global warming – because, in their opinion, wind and solar “cannot scale up fast enough to deliver cheap and reliable power at the scale the global economy requires.”**[1]**

Mark Jacobson, a professor at Stanford in the Department of Civil and Environmental Engineering, finds that perspective to be “without foundation or factual support.” Research by Jacobson paints a completely opposite picture and says that wind, water, and

solar can replace fossil fuels quickly, without nuclear. He said that nuclear power actually takes “10-19 years to plan, permit, and install, compared with 2-5 years for a solar or wind farm.” Regarding next generation nuclear power, Jacobson said that it “does not even exist, except in theory and in the lab, and there is no guarantee it will ever exist at the commercial scale.”**[2]**

Dr Daniel Kammen, co-director of the Berkeley Institute of the Environment at the University of California, says: “Nuclear power is certainly low-carbon in the use phase, but the problems with

## Monitored this issue:

<b>Nuclear vs climate</b>	<b>1</b>
<b>Pandora's propaganda</b>	<b>3</b>
<b>Rosatom BOO boys in Bangladesh</b> <i>Jim Green – Nuclear Monitor</i>	<b>4</b>
<b>Rosatom nuclear exports up, uranium projects on hold</b>	<b>6</b>
<b>Belarus: reactor construction licence issued</b>	<b>7</b>
<b>Fukushima fallout – updates from Japan</b>	<b>8</b>
<b>Nuclear transport accidents and incidents</b>	<b>9</b>
<b>Nuclear news</b>	<b>10</b>
- Radiation can pose bigger cancer risk for children – UN study	
- USA: Bad record keeping hindering clean-up of nuclear sites	
- Areva signs uranium deal with Mongolian state	
- Scotland: Dundrennan depleted uranium protest	
- UK: Inadequate nuclear regulation	
- Italy: radioactive waste dumped illegally by Mafia blamed for cancer increase	
- UK: Dungeness power lines damaged by storms	



the nuclear fuel cycle, as managed today, are of: cost and extreme accidents. Today, nuclear power plants can cost as much as \$10 billion for a 1500 MW plant and take a decade to construct ... The climate crisis demands significant low-carbon deployment today, and it is not clear if nuclear can meet that immediate challenge.”[3]

The US-based Natural Resources Defence Council (NRDC) said “the authors of this letter (and other nuclear energy proponents) are on the wrong track when they look to nuclear power as a silver bullet solution for global warming. To the contrary, given its massive capital costs, technical complexity, and international security concerns, nuclear power is clearly not a practical alternative. Instead, energy efficiency will always be the quickest, cheapest solution to our energy and climate challenges, and clean renewable energy is growing today by leaps and bounds. Inexplicably, Dr. Hansen and his colleagues ignore energy efficiency altogether”.[4]

NRDC says the treatment of renewables is inaccurately dismissive. Wind farms and solar arrays can be installed much faster and typically at lower cost than new nuclear plants, and the consequences of any single unit’s failure are trivial by comparison. Hansen et al.’s contention that these resources cannot “scale” rapidly enough to make a difference is belied by the recent record – windpower alone added nine times more generation than nuclear plants to the US grid from 2000 – 2012. The National Renewable Energy Laboratory has concluded that “renewable electricity generation from technologies that are commercially available today, in combination with a more flexible electric system, is more than adequate to supply 80% of total U.S. electricity gene-

ration in 2050 while meeting electricity demand on an hourly basis in every region of the country.”

The co-authors of the Hansen letter hold out the promise of “safer nuclear energy systems” that will somehow turn things around. But the global history of the nuclear industry is littered with costly failures to create advanced reactor designs that could “reduce proliferation risks and solve the waste disposal problem by burning current waste and using fuel more efficiently.”

The Sierra Club said: “If Fukushima, Chernobyl and Three Mile Island have taught us anything, it’s that nuclear plants are too expensive, too slow to build, and too risky. That’s why countries like Germany – one of the largest economies in the world – are going all in on renewable energy sources and decommissioning dangerous nuclear plants.”

Joseph Romm, the lead climate blogger with the liberal Center for American Progress, focuses on the cost of nuclear plants in his own rebuttal to the scientists’ letter: “I think their letter is mis-addressed and also misses the key point about nuclear power – because it is so expensive, especially when done safely, the industry has no chance of revival absent a serious price on carbon.”[5]

Romm writes that it’s not the green movement that has prevented construction of new nuclear plants in the U.S. in recent decades. “As a practical matter, environmental groups have had little impact on the collapse of nuclear power in America. The countries where nuclear has dead-ended are market-based economies where the nuclear industry has simply been unable to deliver a competitive product,” he writes.[5]

### **Pandora’s Promise**

Meanwhile the pro-nuclear documentary, Pandora’s Promise by director Robert Stone was released on 15th November and formed part of a mini festival in London’s Brixton, showing alongside five other documentaries exploring the pros and cons of nuclear generation and a panel discussion featuring Stone and several of his fellow filmmakers.[6]

For all the globetrotting from Fukushima to Chernobyl to Three Mile Island, the film completely ignores the issue which is actually at the centre of today’s nuclear debate: cost. Damian Carrington writing on *The Guardian* website says there is a serious debate to be had about whether new nuclear power stations are a vital tool in tackling climate change or a damaging distraction from a truly clean energy future. The debate needs to be about which technology should be used, in which countries, at what cost and at what speed of deployment. This film, with its scant cast of writers and octogenarian engineers, says nothing about any of these issues.[7]

US group Beyond Nuclear says “exchanging global warming for nuclear meltdown is not the answer. From a purely practical standpoint – and ignoring for a moment nuclear power’s other showstoppers such as cost, unmanaged nuclear waste, atomic weapons proliferation and catastrophic accident – there simply isn’t time to choose nuclear power. There are faster, affordable alternatives, including energy efficiency and renewable energy installations such as wind farms and solar arrays that can be completed in months to a few years.”[8]

See: [www.beyondnuclear.org/pandoras-false-promises](http://www.beyondnuclear.org/pandoras-false-promises)

### **References:**

- 1 World Nuclear News, 4 Nov 2013, [www.world-nuclear-news.org/EE-Nuclear-essential-for-climate-stability-0411137.html](http://www.world-nuclear-news.org/EE-Nuclear-essential-for-climate-stability-0411137.html)
- 2 Fairfax Climate Watch, 4 Nov 2013, [www.fairfaxclimatewatch.com/blog/2013/11/hot-topic-hansen-says-global-warming-demands-nuclear-energy.html](http://www.fairfaxclimatewatch.com/blog/2013/11/hot-topic-hansen-says-global-warming-demands-nuclear-energy.html)
- 3 RTCC, 4 Nov 2013, [www.rtcc.org/2013/11/04/nuclear-essential-in-climate-fight-say-leading-scientists/](http://www.rtcc.org/2013/11/04/nuclear-essential-in-climate-fight-say-leading-scientists/)
- 4 NRDC Blog, 5 Nov 2013, [http://switchboard.nrdc.org/blogs/dbryk/response\\_to\\_an\\_open\\_letter\\_on.html](http://switchboard.nrdc.org/blogs/dbryk/response_to_an_open_letter_on.html)
- 5 Grist, 7 Nov 2013, <http://grist.org/article/more-nukes-are-you-kidding-enviros-push-back-against-hansens-call/>
- 6 Engineer, 11 Nov 2013, [www.theengineer.co.uk/blog/the-week-ahead-why-nuclear-energy-could-be-the-answer/1017451.article](http://www.theengineer.co.uk/blog/the-week-ahead-why-nuclear-energy-could-be-the-answer/1017451.article)
- 7 Guardian, 8 Nov 2013, [www.theguardian.com/environment/damian-carrington-blog/2013/nov/08/pandoras-promise-pro-nuclear-movie-climate-change](http://www.theguardian.com/environment/damian-carrington-blog/2013/nov/08/pandoras-promise-pro-nuclear-movie-climate-change)
- 8 CNN, 7 Nov 2013, <http://edition.cnn.com/2013/11/07/opinion/pandora-nuclear-gunter-kamps/index.html>

# Pandora's propaganda

Robert Stone's 'Pandora's Promise' film has generated a fresh round of publicity and commentary as it has been shown on CNN and released in more countries including the UK and Australia.

**773.4361** Physicist Ed Lyman trades blows with Stone in opinion pieces published by CNN. Lyman argues that the recounting of the US 'integral fast reactor' (IFR) R&D program in Pandora's Promise is "more myth than reality". He notes that fast reactors can be operated as breeders, producing more plutonium than they consume. He notes that claims about the proliferation-resistance of 'pyroprocessing' are overblown, pointing to a 2008 US Department of Energy review that concluded that pyroprocessing and similar technologies would "greatly reduce barriers to theft, misuse or further processing, even without separation of pure plutonium."

Lyman disputes claims that IFRs could not suffer meltdowns, noting that an IFR prototype, EBR-I in Idaho, had a partial fuel meltdown in 1955 while a similar reactor, Fermi 1 near Detroit, had a partial fuel meltdown in 1966.

Lyman challenges the claim that IFR R&D was shut down in the US in the 1990s: "In fact, the IFR program's demise was a shutdown in name only. The Department of Energy has continued to fund research and development on fast reactor technology to the tune of tens of millions to hundreds of millions of dollars a year."

In response, Stone doesn't rebut any of Lyman's statements but indulges in a hissy fit, describing Lyman as one of the "many henchmen" of the anti-nuclear movement, saying Lyman's criticism "is driven mostly by his life-long aversion to nuclear technology

in any form", and accusing Lyman of "deriving his information from the Internet, which is all he seems to have done."

Stone's response also uses a technique used *ad nauseum* in Pandora's Promise – presenting a false choice. He invites readers to judge for themselves which side of the debate they stand on – with anti-nuclear activists or with climate scientists, i.e. pro-nuclear climate scientists such as James Hansen.

A number of reviews of Pandora's Promise are quite dismissive of concerns about nuclear safety and proliferation (and quite dismissive of the environmental and anti-nuclear movements more generally), but are keenly aware of the economics of nuclear power.

For example Australian academic John Quiggin writes: "So, the fact that the world has not turned to nuclear power as a solution to climate change is a matter of economics. In the absence of a substantial carbon price, nuclear energy can't compete with coal and other fossil fuels. In the presence of a carbon price, it can't compete with wind and solar photovoltaics. The only real hope is that, if coal-fired generation is reduced drastically enough, always-on nuclear power will be a more attractive alternative than variable sources like solar and wind power. However, much of the current demand for "baseload" power is an artifact of pricing systems designed for coal, and may disappear as prices become more cost-reflective."

Victor Gilinsky (former US Nuclear Regulatory Commissioner) and Henry Sokolski (Nonproliferation Policy Education Center) write: "The method the movie uses for this purpose is to interview five supposed environmentalists who changed sides on the nuclear issue. The result is something akin to a psywar broadcast to enemy troops by turncoats, urging their former comrades to surrender, too, and it is about as interesting and effective."

Gilinsky and Sokolski comment on economics: "The trouble with the movie's logic is that the "environmentalists" had little to do with the halt in nuclear construction, and have hardly any influence on its future. If your objective is to get nuclear power rolling, the people you need to convince are not environmentalists but rather the supposedly pro-nuclear corporate utility executives and their bankers, nearly all of whom have decided that they are not going to touch new nuclear construction unless the government assumes the commercial risk. The stubborn fact is that nuclear plants are hellishly expensive and US power companies won't buy them unless they get hefty subsidies. And they won't build them, either, unless the accident risks are in large part absorbed by the government."

Gilinsky and Sokolski conclude: "It is undeniable that in terms of carbon release nuclear energy has an inherent advantage, the promise of which we may in time find ways to exploit effectively. But in its current form, including what is on the drawing boards, this advantage is still more than offset by a series of problems – cost, proliferation and safety. The movie's promise is still nowhere near at hand."

## References and more information on Pandora's Promise:

- Beyond Nuclear: [www.beyondnuclear.org/pandoras-false-promises](http://www.beyondnuclear.org/pandoras-false-promises)
- Victor Gilinsky and Henry Sokolski, 21 June 2013, 'Pandora's Promise – Is the Issue Really Environmental?', Nuclear Intelligence Weekly, Vol.VII No.25, <http://npolicy.org/article.php?aid=1219&tid=5>
- Linda Pentz Gunter and Kevin Kamps, 7 Nov 2013, 'Don't trade global warming for nuclear meltdowns', <http://edition.cnn.com/2013/11/07/opinion/pandora-nuclear-gunter-kamps/>
- Edwin Lyman, 7 Nov 2013, 'Scientist: Film hypes the promise of advanced nuclear technology', <http://edition.cnn.com/2013/11/07/opinion/lyman-nuclear-pandora/>
- Alex Macbeth, 24 Oct 2013, 'Pandora's Promise: Is nuclear an option?', [www.theecologist.org/reviews/films/2131954/pandoras\\_promise\\_is\\_nuclear\\_an\\_option.html](http://www.theecologist.org/reviews/films/2131954/pandoras_promise_is_nuclear_an_option.html)

- John Quiggin, 8 Nov 2013, 'Reviving nuclear power debates is a distraction. We need to use less energy', [www.theguardian.com/commentisfree/2013/nov/08/reviving-nuclear-power-debates-is-a-distraction-we-need-to-use-less-energy](http://www.theguardian.com/commentisfree/2013/nov/08/reviving-nuclear-power-debates-is-a-distraction-we-need-to-use-less-energy)
- Robert Stone, 8 Nov 2013, "'Pandora's Promise' director defends his controversial nuclear energy film", <http://edition.cnn.com/2013/11/07/opinion/pandora-nuclear-stone-ifr-response/index.html>
- 'Pandora's Promise' Propaganda, Nuclear Monitor #764, 28 June 2013, [www.wiseinternational.org/node/4017](http://www.wiseinternational.org/node/4017)

#### Information on integral fast reactors:

- A debate on IFRs between David Lochbaum (Union of Concerned Scientists) and author-advocate Tom Blees: <http://skirsch.com/politics/globalwarming/ifrUCSresponse.pdf>
- Edwin Lyman, 7 Nov 2013, 'Scientist: Film hypes the promise of advanced nuclear technology', <http://edition.cnn.com/2013/11/07/opinion/lyman-nuclear-pandora/> and see the links provided in Lyman's article
- Beyond Nuclear, Jan 2013, 'Pandora's False Promises: The Integral Fast Reactor. Longer Fact Sheet', [www.beyondnuclear.org/storage/documents/BN\\_Final\\_FullFactsheet\\_IFR\\_Jan2013.pdf](http://www.beyondnuclear.org/storage/documents/BN_Final_FullFactsheet_IFR_Jan2013.pdf) and two-page fact-sheet: [www.beyondnuclear.org/storage/documents/BN\\_FactSheetOnly\\_PP\\_IFR\\_Jan2013.pdf](http://www.beyondnuclear.org/storage/documents/BN_FactSheetOnly_PP_IFR_Jan2013.pdf)
- US Office of Technology Assessment report: <http://tinyurl.com/usota-almr>
- FoE Australia, 'Integral Fast Reactors', [www.foe.org.au/anti-nuclear/issues/nfc/power/ifrs](http://www.foe.org.au/anti-nuclear/issues/nfc/power/ifrs)
- FoE Australia, 'Nuclear Weapons and 'Generation 4' Reactors', [www.foe.org.au/anti-nuclear/issues/nfc/power-weapons/g4nw](http://www.foe.org.au/anti-nuclear/issues/nfc/power-weapons/g4nw)

## Rosatom BOO boys in Bangladesh

The foundation stone has been laid at the Rooppur nuclear power site after Russia and Bangladesh signed an agreement on the construction of the country's first nuclear power plant.

**773.4362** The agreement covers the design stage of the project, which is expected to take about two years to complete and will form the basis for obtaining further licences and starting construction of the plant.**[1,2]**

Two 1,000 MWe reactors are planned for Rooppur, based on a modified version of the NPP-2006 VVER pressurised water reactor. The site is on the eastern bank of the river Ganges (in Bangladesh it is called the Padma River), 160 kms from Dhaka. Site preparation is expected to begin in early 2014, with construction beginning in 2015. The project is expected to take around five years, with the first unit beginning operation in 2020 and the second in 2022.**[1,2]**

The project follows Russia's BOO model – build, own and operate.**[3]** Under the terms of the construction deal, Russia's state-run Rosatom nuclear energy corporation will build, operate and provide fuel for the plant in addition to taking back the spent fuel for long-term management and permanent disposal in Russia. Russia will also train workers to operate the plant.**[2,4]**

Abdul Matin, a former chief engineer with the Bangladesh Atomic Energy Commission and author of the book

'Rooppur & the Power Crisis', warns about conflicts of interest: "An ideal feasibility study is usually prepared by an independent consultant in order to correctly assess the technical and economic viability of a project without any bias or prejudice so as to help all the stakeholders in the process of decision making. ... NIAEP-ASE, being a subsidiary of ROSATOM, the likely supplier and builder of the proposed nuclear power plant at Rooppur, cannot by any definition be classified as an independent consultant. Under such circumstances, the credibility of the feasibility study and EIA prepared by them may be questioned."**[5]**

Abdul Matin also discusses conflicts of interest regarding financing: "The economic feasibility will prepare a reasonable estimate of the capital cost of the nuclear plant which will form the basis of negotiations between the BAEC as the owner and ROSATOM as the supplier and builder. The conflict of interest is obvious in this case. While estimating the capital cost of the nuclear plant, will NIAEP-ASE try to keep it as low as possible in the interest of its employer BAEC or will it inflate it to maximize the profits of its parent company? Will it be possible for NIAEP-ASE to impartially evaluate the safety aspects of a nuclear power plant designed, supplied and built

by its parent company [Rosatom]? Under such circumstance, is there any guarantee that the conflict of interest will not lead to a compromise on the safety aspects of the nuclear plant at Rooppur?"**[5]**

Russia has agreed to provide US\$500 million to finance preparatory work and to provide future loans to finance construction of the reactors.**[1]** According to the World Nuclear Association, "a future loan of about \$1.5 billion is expected for the nuclear build proper" or, more cryptically, "a second loan of over \$1.5 billion for 90% of the first unit's construction".**[6]**

Implausible capital costs of US\$2 billion per reactor have been cited. Quamrul Haider, a physics professor at Fordham University, New York, notes that "it would be foolish to expect a good and a safe reactor at such a bargain price."**[7]** Dr A. Rahman, a nuclear safety specialist with over 32 years of experience in the British civil and military nuclear establishments, notes that the capital cost for VVER-1000 reactors in China is US\$4.5 billion with cheap Chinese labour and locally available technology. Dr Rahman opines: "It seems the Bangladesh Government is either deliberately misleading the public, or indulging on wishful thinking or just hallucinating!"**[8]**

Quamrul Haider notes that the estimated construction time of 4–5 years is “far-fetched” [7] while Abdul Matin notes the first reactor is “most unlikely to be in operation before 2023” – three years later than the planned 2020 start-up date.[9]

Claims that the reactors will operate for 60 years with options to extend by another 20 years [4] are also far-fetched. Dr Rahman warns about water supply for reactor cooling. He notes that India built the Farakka Barrage just 40 kms upstream on the Padma River, resulting in lean summer months from January to June, insufficient for even normal riverine trade and transport. “The remaining water available during the summer months is totally inadequate to supply cooling water for even one 1000 MWe plant, let alone two plants,” Dr Rahman says.[8]

Dozens of scientists, engineers, academics, doctors and other professionals have signed a statement expressing concern about the safety and economic viability of the proposed nuclear power plant at Rooppur. They express concern at:

- “woefully inadequate” water supply for reactor cooling;
- “outdated, unsafe and discarded” VVER reactor technology;
- implausible claims from a government minister and the Chair of the Bangladesh Atomic Energy Com

mission that capital costs will amount to just US\$2 billion per reactor;

- the lack of technical expertise or skilled manpower in Bangladesh to undertake such a complex project, and the lack of industrial infrastructure;
- the lack of an institutional and regulatory framework to undertake such a complex project and the consequent safety implications, and Rosatom’s insistence that responsibility for ensuring safety lies with the licensee, the Bangladesh government; and
- the lack of consideration of technical issues associated with the storage, transportation and disposal of radioactive materials and waste.[10]

The professionals state: “Given these shortcomings and insurmountable impediments, the Bangladesh government should seriously consider abandoning this project. ... When advanced countries like Germany, Italy, Switzerland have all given up nuclear power plants and with Japan is tapering down nuclear power production after the Fukushima disaster, Bangladesh seems to be charging ahead recklessly.”[10]

The pro-nuclear *NEI Nuclear Notes* blog has a much more optimistic take on the mismatch between a dangerous, complex technology and the lack of technical and industrial infrastructure in Bangladesh: “One benefit of

nuclear energy that does not get much play is the way its deployment can lead to rapid industrialization in developing nations – maybe a better way to put this is, it can help bring about an industrial revolution.”[11]

Many previous plans for nuclear power in Bangladesh have been abandoned. The first such proposals date back to 1961. A 70 MWe nuclear power plant proposal was approved in 1963; 140 MW in 1966; 200 MW in 1969; and 125 MW in 1980, with proposals and offers from the US, Belgium, Sweden, USSR and France. Plans for a 300 MW reactor were developed in 1980/81. Feasibility studies were carried out in 1987 and 1988. By the 1990s, proposals for a 300–500 MW reactor were under consideration.[12]

In 1999 the then government expressed its firm commitment to build a nuclear plant at Rooppur, and in 2005 it signed a nuclear cooperation agreement with China. In 2007 the Bangladesh Atomic Energy Commission proposed two 500 MW nuclear reactors for Rooppur by 2015. In April 2008 the government reiterated its intention to work with China in building the Rooppur plant and China offered funding for the project. In May 2009 a bilateral nuclear cooperation agreement was signed between Bangladesh and Russia – the genesis of the current project.[6]

## References:

- 1 WNN, 3 Oct 2013, ‘Celebrations herald Bangladesh nuclear plant’ [www.world-nuclear-news.org/NN-Celebrations\\_herald\\_Bangladesh\\_nuclear\\_plant-0310137.html](http://www.world-nuclear-news.org/NN-Celebrations_herald_Bangladesh_nuclear_plant-0310137.html)
- 2 WNN, 2 Nov 2011, ‘Russia agrees to build Bangladeshi nuclear’, [www.world-nuclear-news.org/NP-Russia\\_agrees\\_to\\_build\\_Bangladeshi\\_nuclear-0211114.html](http://www.world-nuclear-news.org/NP-Russia_agrees_to_build_Bangladeshi_nuclear-0211114.html)
- 3 Geert De Clercq, 14 May 2013, ‘Rosatom offers emerging nations nuclear package: paper’, <http://planetark.org/enviro-news/item/68656>
- 4 BBC, 2 Oct 2013, ‘Bangladesh nuclear power plant work begins’, [www.bbc.co.uk/news/world-asia-24371991](http://www.bbc.co.uk/news/world-asia-24371991)
- 5 Abdul Matin, 1 July 2013, ‘Feasibility study on Rooppur NPP and conflict of interest’, [www.theindependentbd.com/index.php?option=com\\_content&view=article&id=176004](http://www.theindependentbd.com/index.php?option=com_content&view=article&id=176004)
- 6 World Nuclear Association, accessed Oct 2013, ‘Nuclear Power in Bangladesh’, [www.world-nuclear.org/info/Country-Profiles/Countries-A-F/Bangladesh/](http://www.world-nuclear.org/info/Country-Profiles/Countries-A-F/Bangladesh/)
- 7 Quamrul Haider, 26 Oct 2013, ‘Capital cost of a nuclear power plant’, [www.thedailystar.net/beta2/news/capital-cost-of-a-nuclear-power-plant/](http://www.thedailystar.net/beta2/news/capital-cost-of-a-nuclear-power-plant/)
- 8 A. Rahman, 19 July 2013, ‘Nuclear fascination and misinformation’, <http://opinion.bdnews24.com/2013/07/19/nuclear-fascination-and-misinformation/>
- 9 Abdul Matin, 23 Oct 2013, ‘How to repay Russian credit for Rooppur?’, [www.thedailystar.net/beta2/news/how-to-repay-russian-credit-for-rooppur/](http://www.thedailystar.net/beta2/news/how-to-repay-russian-credit-for-rooppur/)
- 10 30 June 2013, ‘Concerns over the Safety and Economic Viability of the Proposed Rooppur Nuclear Power Plant (RNPP)’, <http://opinion.bdnews24.com/2013/07/10/rooppur-nuclear-power-plant-unsafe-not-viable/>
- 11 NEI Nuclear Notes, 2 Oct 2013, ‘How Bangladesh Is Moving Forward’, <http://neinuclearnotes.blogspot.com.au/2013/10/how-bangladesh-is-moving-forward.html>
- 12 Bangladesh Atomic Energy Commission, accessed 6 Nov 2013, [www.baec.org.bd/baec/baec/nped.php](http://www.baec.org.bd/baec/baec/nped.php)

# Rosatom nuclear exports up, uranium projects on hold

Russia's state nuclear corporation Rosatom's foreign orders increased by 31% in 2012.

**773.4363** Russia's state nuclear corporation Rosatom's foreign orders increased by 31% in 2012. Orders worth US\$66.5 billion comprised nuclear power plant construction abroad (US\$28.9bn), uranium products (US\$24.7bn), nuclear fuel exports and other foreign activities (US\$12.9bn). [1] Rosatom is building 19 reactors outside of Russia, more than any other vendor.[2]

Russia's willingness to provide billions in financing partly underpins its success, particularly in developing countries, as does the Rosatom 'build, own, operate' (BOO) model.[3,4]

Russia's willingness to accept spent fuel from Russian-built reactors overseas is another selling point. Yet Russia has nowhere to store radioactive waste and spent fuel apart from temporary on-site facilities. In October, Rosatom announced a 'roadmap' to explore the possibility of building 30 long-term repositories as well as temporary waste storage facilities in Russia.[7] Needless to say that process will be protracted and contested.

Alexander Nikitin, chair of the Environment and Rights Center Bellona in St. Petersburg, notes that waste manage-

ment is problematic already without accepting spent fuel from overseas: "Who takes responsibility for what is even a problem at Mayak. Often, it's clear that spent nuclear fuel has come, for instance, from the navy, but poor documentation and lousy bureaucracy fails to establish who is actually responsible for it now." [7]

Rosatom provides little detail about the reactors it is selling and building, due to strict internal commercial secrecy rules. Jukka Laaksonen, a former Finnish nuclear regulator now employed by Rosatom, told Reuters: "Inexperienced customers, who do not know that much about nuclear power, cannot ask as much." He pointed to a fold-out diagram of the VVER reactor, torn from an international nuclear engineering magazine, as no more detailed than most of the written information the company provides to potential clients. [2]

Nuclear power plants in Russia generated a record 177.3 TWh of electricity in 2012 – 2.7% higher than in 2011. [1] In October, Rosatom formally abandoned its previous, fanciful plan to build 35 reactors in Russia by 2020. Rosatom head Sergei Kiriyeiko said the

new roadmap for 2013 to 2024 involves building 18 new nuclear reactors.[8]

Rosatom reported that its uranium production reached 7,600 tonnes in 2012 (about 13% of total world output), an increase of 7% compared to 2011. Rosatom also met 45% of world demand for enrichment services in 2012 as well as 17% of fabricated fuel requirements.[1,5]

Rosatom says it will freeze uranium expansion projects in Russia and elsewhere due to low prices. "We cannot discount the dramatic fall in natural uranium prices, as a result of which over 50 percent of global uranium production is currently loss-making," said Vadim Zhivov from Rosatom's mining subsidiaries Atomredmetzoloto and Uranium One Holding.[6]

Zhivov said details of which of the company's projects are to be cancelled would be announced later. The Honey-moon mine in South Australia will be put into care and maintenance after several troubled years of operation. Other projects that could be affected include the Mkuju River mine in Tanzania, several minor projects in Russia, and the Willow Creek project in the US state of Wyoming.[6]

## References:

- 1 NEI, 13 Nov 2013, 'Rosatom aims for \$72bn in foreign orders for 2013', [www.neimagazine.com/news/newsrosatom-aims-for-72bn-in-foreign-orders-for-2013](http://www.neimagazine.com/news/newsrosatom-aims-for-72bn-in-foreign-orders-for-2013)
- 2 Alissa de Carbonnel and Svetlana Burmistrova, 14 Nov 2013, 'Russian nuclear exporter's foreign hires battle Soviet-style secrecy', <http://uk.reuters.com/article/2013/11/14/uk-russia-nuclear-rosatom-idUKBRE9AD0WC20131114>
- 3 Geert De Clercq, 14 May 2013, 'Rosatom offers emerging nations nuclear package: paper', <http://planetark.org/enviro-news/item/68656>
- 4 WNN, 4 June 2012, 'Rosatom signs international deals', [www.world-nuclear-news.org/NN\\_Rosatom\\_signs\\_international\\_deals\\_0406121.html](http://www.world-nuclear-news.org/NN_Rosatom_signs_international_deals_0406121.html)
- 5 WNN, 13 Nov 2013, 'Rosatom sees exports jump in 2012', [www.world-nuclear-news.org/C-Rosatom-sees-exports-jump-in-2012-1311134.html](http://www.world-nuclear-news.org/C-Rosatom-sees-exports-jump-in-2012-1311134.html)
- 6 Reuters, 13 Nov 2013, 'Russia's Rosatom to mothball uranium mine expansion projects', <http://money.msn.com/business-news/article.aspx?feed=OBR&date=20131113&id=17102011>
- 7 Charles Digges, 18 Nov 2013, 'Russia's nuclear corporation embarks on permanently storing radioactive waste – but final solutions still distant', [www.bellona.org/articles/articles\\_2013/rosatom\\_repositories](http://www.bellona.org/articles/articles_2013/rosatom_repositories)
- 8 Charles Digges, 13 Nov 2013, 'Rosatom's new 'roadmap' slashes number of new reactors, but leaves loose ends on shut downs', [www.bellona.org/articles/articles\\_2013/atomEco\\_roadmap](http://www.bellona.org/articles/articles_2013/atomEco_roadmap)

# Belarus: reactor construction licence issued

The construction of the first nuclear power plant in Belarus can commence following the issuance of a permit from the country's nuclear regulator.

**773.4364** The Department for Nuclear and Radiation Safety (Gosatomnazor) of the Ministry of Emergencies has issued the State Entity Nuclear Power Plant Construction Directorate (Belarus AEC) with a licence for the construction of the first of two reactors at the Ostrovets site. The main construction contract was awarded to Russia's AtomStroyExport in October 2011, while a US\$10 billion turn-key contract was finalised between Belarus and Rosatom in July 2012 for the supply of the two reactors. The 1,200 MWe AES-2006 model VVER pressurized water reactor design has been selected for use at the plant.[1]

Earlier this year, the Lithuanian government made known its deep concerns about Belarus's nuclear power project near Ostroverts. In the past month, diplomatic notes have been sent to Belarus to protest earth-moving and other initial work for the plant. "We have many concerns about safety and information we've asked for hasn't been provided," Lithuanian Prime Minister Algirdas Butkevicius said.

A UN committee said in April that Belarus wasn't abiding by the terms of the Espoo Convention on cross-border environmental issues.[2,3]

In late October, the Lithuanian foreign ministry noted that the environmental impact assessment process of the Belarusian nuclear plant under the Espoo Convention has not been completed. "Therefore, the ongoing construction of the NPP and the decision to start installing nuclear equipment are obvious instances of failure to comply with provisions of the Convention." [4]

*Belarus Digest* reported on 27 August: "Minsk preferred to ignore not only some Lithuania's requests, but also a letter from the EU and provided the [UN] Committee with documents in Russian without a translation into English. At the same time, it manipulated with the EIA texts and held only nominal public hearing with Lithuanian residents. Isolated from many pan-European projects, the Belarusian state clearly has real problems with

educating its bureaucrats on new ways of doing government business, particularly in international context." [5]

The thuggishness of the Belarusian state was on full display before and during a Chernobyl day commemoration and demonstration in Minsk earlier this year. Six journalists were arrested during and after the demonstration in a move that drew harsh criticism from Reporters Without Borders (which ranks Belarus a low 157 out of 179 surveyed countries for press freedom). [6]

Influential activists and politicians were targeted. According to Bellona, at least 15 renowned anti-nuclear activists were prevented from taking part in the march, but many more rank and file activists were roughed up by police and brutally dragged from the demonstration. [6]

Vitaly Rymashevsky, a member of the Belorussian Christian Democracy movement, told Bellona that "what happened to many participants and organisers of the march was not detention – it was siege and violent kidnapping of people in the centre of the city. ... This is a sure sign that there is no liberalisation underway in Belarus." [6]

## References:

- 1 WNN, 28 Oct 2013, 'Construction licence for Ostrovets', [www.world-nuclear-news.org/NN-Construction-licence-for-Ostrovets-2810134.html](http://www.world-nuclear-news.org/NN-Construction-licence-for-Ostrovets-2810134.html)
- 2 'Lithuania opposes new reactor in Belarus', 6 Sept 2013, Nuclear Monitor #767, [www.wiseinternational.org/nuclear-monitors](http://www.wiseinternational.org/nuclear-monitors)
- 3 'Lithuania concerned about Belarus nuclear plant', 26 Apr 2013, Nuclear Monitor #761, [www.wiseinternational.org/nuclear-monitors](http://www.wiseinternational.org/nuclear-monitors)
- 4 'Lithuanian Foreign Ministry Urges Belarus Not to Start Building Nuclear Plant until its Environmental Impact Has Been Assessed', 31 Oct 2013, <http://democraticbelarus.eu/news/lithuanian-foreign-ministry-urges-belarus-not-start-building-nuclear-plant-until-its-environment>
- 5 Siarhei Bohdan, 27 Aug 2013, 'Belarus and Lithuania: A Tale of Two Nuclear Power Plants', Belarus Digest, <http://belarusdigest.com/story/belarus-and-lithuania-tale-two-nuclear-power-plants-15157>
- 6 Charles Digges, 2013, 'Thuggish arrests of activists and journalists mar Chernobyl anniversary march in Minsk, Belarus', [www.bellona.org/articles/articles\\_2013/belarus\\_npp\\_crackdown](http://www.bellona.org/articles/articles_2013/belarus_npp_crackdown)

# Fukushima fallout – updates from Japan

## Dodging responsibility for nuclear disasters

**773.4365** Greenpeace reports that the US is offering to provide assistance with ongoing work at Fukushima, in particular the multiple problems with contaminated water, but only if Japan first signs the Convention on Supplementary Compensation for Nuclear Damage (CSC).**[1]**

According to Dr Rianne Teule, a radiation expert with Greenpeace International: “This is an international treaty that supposedly provides an international regime on nuclear liability – the who-should-pay-for-a-nuclear-accident issue. But the real aim of the CSC, along with other international conventions on nuclear liability, is to protect the nuclear industry. It caps the total compensation available after a nuclear accident at a level much lower than the actual costs. The companies that supply nuclear reactors and other material are exempt, they don’t have to pay anything if there is an accident. The operators of nuclear plants are the only ones accountable for paying damages but the CSC protects them too by not requiring them to have enough money or financial security to cover the costs of an accident.”**[1]**

Japan signing the CSC would have two important benefits for the US: it would reduce the chances that General Electric can be sued for damages for the Fukushima accident; and it could secure future business opportunities in Japan for US nuclear suppliers. Dr Teule writes: “The US is not offering help to Japan out of the kindness of its heart, but to give a lifeline to its dying nuclear business. The US has been pushing ratification of the CSC in other countries where they hope to expand their nuclear business, such as India, Canada, Korea.”**[1]**

In September, a freedom of information

request lodged by Greenpeace turned up documents from 1960 revealing that nuclear companies pressured the Japan Atomic Energy Commission to make sure they were exempted from all responsibility for a nuclear accident, except in the case of a deliberate act. Greenpeace states: “GE, Hitachi and Toshiba, the big companies that all built reactors at Fukushima based on a flawed GE reactor design, have not paid a cent to help TEPCO and have done little to nothing to help the victims of the disaster. So, Japan’s taxpayers have to step in to pay the billions upon billions of yen needed to deal with the industry’s gross negligence.”**[2]**

**[1]** Greenpeace, 5 Nov 2013, [www.greenpeace.org/international/en/news/Blogs/nuclear-reaction/cynical-uss-hidden-agenda-in-offer-to-help-ja/blog/47246/](http://www.greenpeace.org/international/en/news/Blogs/nuclear-reaction/cynical-uss-hidden-agenda-in-offer-to-help-ja/blog/47246/)

**[2]** Justin McKeating, 10 Sept 2013, ‘Proof that the nuclear industry has been dodging its responsibilities for over 50 years’, [www.greenpeace.org/international/en/news/Blogs/nuclear-reaction/proof-that-the-nuclear-industry-has-been-dodg/blog/46544/](http://www.greenpeace.org/international/en/news/Blogs/nuclear-reaction/proof-that-the-nuclear-industry-has-been-dodg/blog/46544/)

## Draft legislation targets whistleblowers, media

Japan’s prime minister Shinzo Abe is planning a new State Secrets Act that could suppress publication and dissemination of information about the Fukushima nuclear disaster and other contentious issues. The Act is being referred to by campaigners as the Fukushima Law. A draft of the new law was approved by Cabinet in late October and is likely to be passed in the current Parliamentary session, which ends on December 6, since Abe’s Liberal Democratic Party enjoys a majority in both houses of parliament. The law would impose harsh penalties on those who leak secrets, or even try to obtain them. Journalists found to

be breaking the law could be sent to prison for five years while government employees releasing secret information could be imprisoned for a decade.**[1,2]**

Media and legal experts say the law is both broad and vague, giving the Japanese government enormous scope to determine what would actually qualify as a state secret. Furthermore the law makes no provision for any independent review process. The proposed law names four categories of ‘special secrets’, which would be covered by protection – defense, diplomacy, counter-terrorism and counter-espionage.**[1]**

Under the new legislation a ministry may classify information for a five-year term with a possibility of prolongation up to 30 years. Extension beyond 30 years would require Cabinet approval. Cabinet added a provision to the draft which gives “utmost considerations” to citizens’ right to know and freedom of the press, but critics have dismissed those as window dressing.**[3]**

Sophia University political science professor Koichi Nakano said: “This may very well be Abe’s true intention – cover-up of mistaken state actions regarding the Fukushima disaster and/or the necessity of nuclear power.”**[4]**

In early 2013, Japan fell from 22nd to 53rd place in the Reporters Without Borders’ ranking of media freedom. This was attributed to a single factor – the lack of access to information related to the Fukushima nuclear disaster. Many reporters have met with restricted access, lack of transparency and even lawsuits while TEPCO has consistently barred access to documents and to people.**[5]**

**1** Oliver Tickell, 30 Oct 2013, ‘State Secrets Act to suppress Fukushima information’, [www.theecologist.org/News/news\\_round\\_up/2139614/state\\_secrets\\_act\\_to\\_suppress\\_fukushima\\_information.html](http://www.theecologist.org/News/news_round_up/2139614/state_secrets_act_to_suppress_fukushima_information.html)

**2** Kiyoshi Takenaka, 24 Oct 2013, ‘Factbox: Japan prepares for new law to protect national secrets’, [www.reuters.com/article/2013/10/25/us-japan-secrecy-bill-factbox-idUSBRE99O03820131025](http://www.reuters.com/article/2013/10/25/us-japan-secrecy-bill-factbox-idUSBRE99O03820131025)

**3** 25 Oct 2013, ‘Fuk-hush’-ima: Japan’s new state secrets law gags whistleblowers, raises press freedom fears’, <http://rt.com/news/japan-state-secrets-law-712/>

**4** Linda Sieg and Kiyoshi Takenaka, 24 Oct 2013, ‘Japan secrecy act stirs fears about press freedom, right to know’, [www.reuters.com/article/2013/10/25/us-japan-secrecy-idUSBRE99N1EC20131025](http://www.reuters.com/article/2013/10/25/us-japan-secrecy-idUSBRE99N1EC20131025)

**5** Reporters Without Borders 2013 World Press Freedom Index, <http://en.rsf.org/press-freedom-index-2013,1054.html>

# Nuclear transport accidents and incidents

## Burning truck, burning ship carrying uranium hexafluoride

**773.4366** Recent reports have detailed an August 22 event in Ohio, USA, involving a burning truck carrying uranium hexafluoride. Nuclear regulators in Canada – where the cargo originated – and in the US were not informed of the incident. Indeed there was no requirement for them to be notified.**[1]**

The fire was caused by brake overheating. Driver Brian Hanson doused the fire with water and thought he had extinguished it, and climbed back into the cab to call for a service truck. Then he realised the fire wasn't out and disconnected the trailer.

Hanson said: "I wound the legs down and disconnected it from the truck, losing the hair on my arms because it was really burning at that time – which I figure was kind of crazy in hindsight. But we're so programmed and told about the danger of a load, and the media danger. We're basically taught that the media's like terrorism. We're supposed to do everything we can to avoid media. I wanted to get the fire away from the uranium hexafluoride because it's heat activated ... It's really nasty stuff, and they would have had to evacuate a huge neighbourhood we were beside."

Hanson added: "So I got the truck disconnected, it was burning like crazy, fire blazing out the back, trying to get to a safe place to get off the highway and away from the load. I made it two miles before the truck was disabled, but I got off on the exit ramp and by that time the police were just seconds behind me, and the fire trucks were on the way."

A new rig was dispatched to pick up the uranium load. The shipment came from a Cameco refinery in Port Hope,

Ontario, Canada. Cameco said: "Uranium hexafluoride is transported in special containers that are designed and tested to withstand a significant impact and at least 30 minutes engulfed in flames at a temperature of 800 degrees Celsius." The material is transported in a cylinder about 1.2 metres in diameter and 6 metres long, containing 12,000 kilograms.

According to Argonne National Laboratory (ANL) – a U.S. Department of Energy research lab – if uranium hexafluoride interacts with water or water vapour, it is "chemically toxic," forming dangerous hydrogen fluoride gas. "Uranium is a heavy metal that, in addition to being radioactive, can have toxic chemical effects (primarily on the kidneys) if it enters the bloodstream by means of ingestion or inhalation," ANL says, and hydrogen fluoride "is an extremely corrosive gas that can damage the lungs and cause death if inhaled at high enough concentrations."

## Atlantic Cartier ship fire

In May, fire damaged the Atlantic Cartier ship carrying nine tons of uranium hexafluoride while it was in the Port of Hamburg. The uranium was destined for the Areva-owned uranium enrichment plant at Lingen, Lower Saxony.

**[2]** Authorities said containers with dangerous substances were promptly removed from the ship.**[3]**

From 2008–2013, inspections recorded 20 deficiencies involving the Atlantic Cartier relating to: international safety management; documentation of compliance with dangerous goods legislation; safety of access to working areas; Marpol (UN marine pollution convention) Annex 1 fire prevention issues; speed and distance indica-

tors; safety of navigation (voyage plan); loadlines; propulsion auxiliary engine concerns; accident prevention (onboard personnel); ships certification and documentation; operational procedures (engines and equipment); and distress signalling.**[4]**

## Canada – Trucks with radioactive cargo fail inspections

Since 2010, more than one truck in seven carrying radioactive material has been pulled off the road by Ontario ministry of transportation inspectors for failing safety or other requirements.

**[5]** The information is contained in a notice **[6]** filed with a panel studying a proposal to establish a radioactive waste repository near Kincardine.

The notice states that since 2010, inspectors examined 102 trucks carrying "Class 7 Dangerous Goods (Radioactive material.)" Of those, 16 were placed "out-of-service," which means the vehicle "must be repaired or the violation corrected before it is allowed to proceed." Violations included faulty brake lights; "load security" problems; flat tires; false log; damaged air lines; and a driver with no dangerous goods training.**[6]**

In other cases, trucks were allowed to proceed but were slapped with enforcement actions for problems with hours of service; annual inspection requirement; missing placards; exceed gross weight limit; speed limiter; overlength combination; overweight vehicle; and vehicle registration / insurance.**[6]**

In total, 25 of the 102 inspections – nearly one in four – resulted in the vehicle being placed out-of-service and / or enforcement action taken against the operator of the vehicle.**[6]**

## References:

- 1 John Spears, 31 Oct 2013, 'Burning truck hauling nuclear load flies under radar', [www.thestar.com/business/2013/10/31/burning\\_truck\\_hauling\\_nuclear\\_load\\_flies\\_under\\_radar.html](http://www.thestar.com/business/2013/10/31/burning_truck_hauling_nuclear_load_flies_under_radar.html)
- 2 Martyn Lowe, 25 Aug 2013, 'Next Destination – Antwerp', [www.theproject.me.uk/?p=492](http://www.theproject.me.uk/?p=492)
- 3 May 2013, <http://rt.com/news/hamburg-radioactive-ship-fire-464/>
- 4 UK Nuclear Free Local Authorities, 28 Aug 2013, 'NFLA alarmed about docking of Atlantic Cartier in Liverpool', [www.nuclearpolicy.info/docs/news/NFLA\\_Atlantic\\_Cartier\\_concerns.pdf](http://www.nuclearpolicy.info/docs/news/NFLA_Atlantic_Cartier_concerns.pdf)
- 5 John Spears, 15 Nov 2013, 'Trucks with radioactive cargo fail inspections', [www.thestar.com/business/2013/11/15/trucks\\_with\\_radioactive\\_cargo\\_fail\\_inspections.html](http://www.thestar.com/business/2013/11/15/trucks_with_radioactive_cargo_fail_inspections.html)
- 6 Ministry of Transportation – Undertaking #61: [www.ceaa-acee.gc.ca/050/documents/p17520/95562E.pdf](http://www.ceaa-acee.gc.ca/050/documents/p17520/95562E.pdf)

# Nuclear news

## Radiation can pose bigger cancer risk for children – UN study

Infants and children are at greater risk than adults of developing some cancers when exposed to radiation, according to a report released in October by the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) and presented to the UN General Assembly.

Children were found to be more sensitive than adults for the development of 25% of tumour types including leukaemia and thyroid, brain and breast cancers. “The risk can be significantly higher, depending on circumstances,” UNSCEAR said.

“Because of their anatomical and physiological differences, radiation exposure has a different impact on children compared with adults,” said Fred Mettler, chair of an UNSCEAR expert group on the issue.

[www.reuters.com/article/2013/10/25/us-nuclear-radiation-children-idUS-BRE9900M820131025](http://www.reuters.com/article/2013/10/25/us-nuclear-radiation-children-idUS-BRE9900M820131025)

## USA: Bad record keeping hindering clean-up of nuclear sites

The US government’s decades-long effort to rehabilitate hundreds of sites around the country where nuclear weapons development and production has taken place has been hampered by sloppy record-keeping. Documentation has been so uneven that the Energy Department says it lacks adequate records on several dozen facilities to be able to determine whether they merit clean-up. Additionally, in excess of 20 sites that were cleaned up and announced to be safe ended up needing more rehabilitation after lingering traces of nuclear contamination were found. The final price-tag of the clean-up effort is estimated to cost US\$350 billion.[1]

Meanwhile, who – and what pot of money – would drive clean-up after a nuclear power plant incident is a question still left unanswered by the federal government, New York state officials said in a recent legal filing with the Nuclear Regulatory Commission. Under the Price-Anderson Act, the

nuclear power industry’s liability in the event of a catastrophe is limited, and in any case NRC officials said in 2009 that Price-Anderson money likely would not be available to pay for offsite clean-up – a revelation made public a year later when internal EPA documents were released under the Freedom of Information Act. Another three years have gone by and the federal government has yet to provide a clear answer, the New York Attorney General’s office says. In 2012, NRC Commissioner William Magwood acknowledged that there “is no regulatory framework for environmental reclamation following a major radiological release.”[2]

1 *NTI Global Security Newswire*, 30 Oct 2013, ‘Bad Record Keeping Hindering Cleanup of Ex-Nuclear Sites: Report’, [www.nti.org/gsn/article/cleanup](http://www.nti.org/gsn/article/cleanup)

2 *Douglas P. Guarino*, 25 Sept 2013, ‘New York Wonders Where Nuclear Cleanup Funds Would Come From’, [www.nti.org/gsn/article/new-york-wonders-where-nuclear-cleanup-funds-would-come/](http://www.nti.org/gsn/article/new-york-wonders-where-nuclear-cleanup-funds-would-come/)

## Areva signs uranium deal with Mongolian state

French utility Areva has signed a deal with Mongolia’s state-owned Mon-Atom to develop two uranium mines in the Gobi desert. A company will be created, 66% owned by Areva, 34% Mon-Atom, and Japan’s Mitsubishi Corporation will take an equity interest. Areva said exploration had discovered two uranium deposits with estimated reserves of 60,000 tonnes.

Mongolian protesters had warned before the signing that a deal could lead to the contamination of water resources in the area. Selenge Lkhagvajav, a protest leader, said: “We are not against cooperation with France. But we just say ‘no uranium exploration in Mongolia’, as not having it is the best way to prevent radioactive pollution and contamination.”

[www.channelnewsasia.com/news/business/french-energy-giant-signs/862604.html](http://www.channelnewsasia.com/news/business/french-energy-giant-signs/862604.html)  
<http://news.yahoo.com/french-energy-giant-signs-uranium-deal-mongolia-144529207.html>

## Scotland: Dundrennan depleted uranium protest

Campaigners held a walk-on at the Dundrennan range in protest at the test firing of depleted uranium (DU) weapons into the Solway Firth. It was part of an international day of action and followed concerns about serious health issues resulting from the use of such weapons in war zones. The last DU tests at the south of Scotland range were in 2008. DU Day of Action events were also held in Finland, Japan, Norway, Costa Rica and elsewhere.

[www.bbc.co.uk/news/uk-scotland-south-scotland-24835544](http://www.bbc.co.uk/news/uk-scotland-south-scotland-24835544)

[www.bandepleteduranium.org/en/6/11-day-of-action](http://www.bandepleteduranium.org/en/6/11-day-of-action)

## UK: Inadequate nuclear regulation

The UK government’s nuclear safety watchdog has named the five UK sites that need the most regulation because of the safety problems they pose. They are the reprocessing complex at Sellafield in Cumbria, the nuclear bomb factories at Aldermaston and Burghfield in Berkshire, the nuclear submarine base at Devonport in Plymouth and the former fast breeder centre at Dounreay in Caithness.[1]

These sites have been highlighted by the Office for Nuclear Regulation (ONR) in its 2013 annual report as requiring an “enhanced level of regulatory attention” because of the radioactive hazards on the sites, the risk of radioactive leaks contaminating the environment around the sites and ONR’s view of operators’ safety performances.[1]

Sellafield was rated unacceptable in one inspection because a back-up gas turbine to provide power to the site in emergencies was “at imminent risk of failure to operate” because of severe corrosion. “Failure would reduce the availability of nuclear safety significant equipment, and also potentially injure or harm the workforce,” says ONR.[1]

At Aldermaston, corrosion in a structural steelwork was discovered in 2012, resulting in the closure of the A45 building which makes enriched uranium components for nuclear warheads and

fuel for nuclear submarines.[1]  
 In May, AWE admitted one count of breaching the Health and Safety At Work Act 1974 in relation to an August 2010 accident and fire at Aldermaston. A worker was injured when the mixing chemicals in a bucket caused an explosion and a fire which led to the evacuation of staff and nearby residents. Bernard Thorogood, prosecuting on behalf of the Health and Safety Executive, said an investigation into the fire revealed a “constellation of failures” relating to health and safety regulations which put employees at risk.[2]

1 Rob Edwards, 5 Nov 2013, [www.robedwards.com/2013/11/five-nuclear-sites-with-most-safety-problems-named-by-government-watchdog.html](http://www.robedwards.com/2013/11/five-nuclear-sites-with-most-safety-problems-named-by-government-watchdog.html)

2 Basingstoke Gazette, 23 May 2013, [www.basingstokegazette.co.uk/news/10436305\\_/](http://www.basingstokegazette.co.uk/news/10436305_/)

**Italy: radioactive waste dumped illegally by Mafia blamed for cancer increase**

The Italian Senate is investigating a possible link between buried radioactive waste and a rise of almost 50%

in tumours found in the inhabitants of several towns around Naples. The illegal trafficking of hazardous waste came to light in 1997. A Mafia clan had run a profitable operation dumping millions of tonnes of waste on farmland, in caves, in quarries, on the edge of towns, in Lake Lucrino and along the coast.

Radioactive sludge, brought in on trucks from plants in Germany, was dumped in landfills, said Carmine Schiavone, who was involved in the illegal activities before becoming a whistle-blower. “I know that some is on land where buffalo live today, and on which no grass grows,” he said.

Hannah Roberts, 1 Nov 2013, ‘Toxic nuclear waste dumped illegally by the Mafia is blamed for surge in cancers in southern Italy’, [www.dailymail.co.uk/news/article-2483484/Toxic-nuclear-waste-dumped-illegally-Mafia-blamed-surge-cancers-southern-Italy.html](http://www.dailymail.co.uk/news/article-2483484/Toxic-nuclear-waste-dumped-illegally-Mafia-blamed-surge-cancers-southern-Italy.html)

**UK: Dungeness power lines damaged by storms**

EDF’s Dungeness nuclear power station has been reconnected to the

National Grid after power lines were damaged when storms battered southern Britain. The Kent power plant’s two reactors were automatically shut down when electricity to the site was cut off on 28 October.[1] More than 60,000 homes and businesses were left without power.[2]

The Dungeness plant was in the media earlier this year when Freedom of Information documents revealed that ministers rejected advice from the Office for Nuclear Regulation to restrict development near nuclear plants. That advice was overridden when the government approved the expansion of Lydd airport, a few miles from the Dungeness plant. Dungeness was also in the news earlier this year when it was revealed that tritium leaks beyond the statutory limit had occurred.[3]

1 BBC, 6 Nov 2013, [www.bbc.co.uk/news/uk-england-kent-24838306](http://www.bbc.co.uk/news/uk-england-kent-24838306)

2 Utility Week, 29 Oct 2013, [www.utilityweek.co.uk/news/nuclear-plant-and-60000-customers-still-off-supply-as-dnos-repair-st-jude-storm-damage/937692](http://www.utilityweek.co.uk/news/nuclear-plant-and-60000-customers-still-off-supply-as-dnos-repair-st-jude-storm-damage/937692)

3 ‘Dungeness Airport Threat & Tritium’, May 2013, [www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo50.pdf](http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo50.pdf)

# 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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