



## Drumbeat Special Edition: Fukushima Thread

Posted by [Leanan](#) on March 13, 2011 - 10:00am

### [Analysis: Seawater helps but Japan nuclear crisis is not over](#)

(Reuters) - Pumping seawater into troubled nuclear reactors in Japan should keep them from a catastrophic full-scale meltdown, but conditions are still so volatile that it is far too early to declare the emergency over, nuclear experts said.

It is probably the first time in the industry's 57-year history that seawater has been used in this way, a sign of how close Japan is to facing a major nuclear disaster following the massive earthquake and tsunami on Friday, according to the scientists.

### [Radioactivity levels normal at one nuclear plant; emergency continues at others](#)

Radioactivity levels at one of Japan's nuclear power plants are back to normal following Friday's earthquake and tsunami, but the emergency continues at the Fukushima plant.

A state of emergency was called at the Onagawa nuclear power plant in northern Japan earlier today.

### [At least 15 Japanese hospitalized with radiation poisoning](#)

At least 15 people have been admitted to hospital with symptoms of radiation poisoning following an accident at Japan's Fukushima nuclear power plant, the Kyodo news agency said on Sunday.

A blast ripped through the Fukushima Number One nuclear reactor on Saturday, destroying the building, but leaving the nuclear reactor itself undamaged, according to official Japanese reports. A steel container covering the reactor has protected it from the blast, the authorities said.

### [Analysis: Japan crisis fuels fears over Europe's nuclear revival](#)

(Reuters) - Japan's nuclear crisis in the wake of a huge earthquake is likely to increase opposition to plans for a major nuclear expansion in Europe and focus attention on the vast potential costs of a nuclear disaster.

The crisis will reignite concern over nuclear safety as Japan fights to avert a meltdown at crippled nuclear reactors, describing the quake and tsunami, which may have killed more than 10,000 people, as its biggest crisis since World War Two.

The disaster is a setback to the nuclear industry, which is enjoying a renaissance as public fears over nuclear safety have faded along with memories of the 1979 Three Mile Island accident in the United States and Ukraine's 1986 Chernobyl disaster.

### [Tsunami marks end of 'nuclear renaissance in Japan'](#)

HIROSHIMA, Japan: It is this nation's greatest fear, revisited.

Almost 66 years after atomic bombs decimated this city and Nagasaki during World War II, Japan holds its breath against a new nuclear threat.

### [Japan disaster may set back nuclear power industry](#)

Japan's struggle to contain a partial meltdown at one nuclear reactor and the threat of an explosion at a second reactor could deal a hard blow to the nuclear power industry.

### [Nuclear Overreactions](#)

After a once-in-300-years earthquake, the Japanese have been keeping cool amid the chaos, organizing an enormous relief and rescue operation, and generally earning the world's admiration. We wish we could say the same for the reaction in the U.S., where the troubles at Japan's nuclear reactors have produced an overreaction about the risks of modern life and technology.

### [Japan reactor is no Chernobyl: experts](#)

"This is not a serious public health issue at the moment," said Malcolm Crick, secretary of the UN Scientific Committee on the Effects of Atomic Radiation.

"It won't be anything like Chernobyl. There the reactor was operating at full power when it exploded and it had no containment."

### [Japan Radiation Risk Seen as Low so Far](#)

Although several plant workers are ill from radioactive exposure in Japan, the radiation risk to the public appears low so far, experts said.

### [Uncertainty surrounds Japan's nuclear picture](#)

The word "meltdown" goes to the heart of the big nuclear question - is nuclear power safe?

The term is associated in the public mind with the two most notorious accidents in recent memory - Three Mile Island, in the US, in 1979, and Chernobyl, in Ukraine, seven years later.

### [Threat from meltdown only minor: nuclear power expert](#)

The impact of any meltdown in Japanese nuclear reactors damaged by the recent earthquake will be small compared to the devastation caused by the quake itself and the subsequent tsunami, Australia's best-known nuclear power expert says.

Dr Ziggy Switkowski, who was chairman of the the Australian Nuclear Science and Technology Organisation (ANSTO) until a few months ago, says a significant build-up of radiation is unlikely.

### [Factbox: Anatomy of a Meltdown for English Majors](#)

"Does it bother anyone that CNN has a picture of a Pressurized Water Reactor on this page when the Reactor at Fukushima I Unit 1 is a Boiling Water Reactor (BWR-3)? " asks RickW123.

We liberal arts and English majors shrug our shoulders and talk to each other in frightened, shrill tones, admitting to each other that, like scientific bigots, "they all look alike."

### [US lawmakers mull nuclear moratorium after quake](#)

WASHINGTON (AFP) – The unfolding nuclear disaster in Japan at reactors damaged by a massive earthquake and subsequent tsunami has led some lawmakers to call for the United States to "put the brakes" on domestic nuclear development.

"I've been a big supporter of nuclear power because it's domestic -- it's ours and it's clean," influential Senator Joseph Lieberman told the CBS News television program "Face The Nation" Sunday.

Nevertheless "I think we've got to ... quietly and quickly put the brakes on until we can absorb what has happened in Japan as a result of the earthquake and the tsunami," said Lieberman, who is chairman of the Senate Homeland Security Committee.

### [U.S. won't feel radiation from Japan: U.S. nuclear agency](#)

(Reuters) - The United States is not expected to experience "any harmful levels" of radiation from Japan's earthquake-hit nuclear power reactors, the U.S. Nuclear Regulatory Commission said on Sunday.

### [Total of Seven Japanese Reactors Now Face Coolant Problems, Core Damage Possible at Two](#)

The Kyodo News Agency is now reporting coolant issues at a third Japanese nuclear plant, bringing the total number of reactors with severe electrical or cooling problems following Friday's earthquake to seven.

### [Factbox: Japan quake impact on energy, commodities, manufacturers](#)

(Reuters) - The following is a roundup of the effect on manufacturers, energy firms and other companies of the devastating earthquake and tsunami that struck the northeast coast of Japan.

### [Fukushima: Nuclear backgrounder](#)

Following is a technical backgrounder on events at the Fukushima plant in northeastern Japan, crippled by a tsunami unleashed by last Friday's 8.9 magnitude quake:

### [Japan's N-hazard due to rare mix of events: Scientists](#)

MUMBAI: Indian nuclear operators and scientists on Sunday said the failure of Japanese nuclear reactors was mainly due to the devastating tsunami, which led to external electricity failure and termed the incident "rare combination of events." They also commended their counterparts in Japan for carrying out an excellent procedure in the aftermath of the worst tsunami and preventing any external radiation exposure at Fukushima Daiichi No.1 Nuclear reactor.

### [In Pictures: Japan Earthquake & Tsunami](#)

On March 11, 2011, at 2:46 p.m. local time (05:46 UTC), a magnitude 8.9 earthquake struck off the east coast of Japan. The epicenter was 80 miles (130 kilometers) east of Sendai, and 231 miles (373 km) northeast of Tokyo. If initial measurements are confirmed, it will be the world's fifth largest earthquake since 1900 and the worst in Japan's history.

### [Nuke industry spin: Be "reassured" by Japan](#)

As the crisis unfolds, the Nuclear Energy Institute joins an intense PR battle that has already started.

### [What went wrong at Fukushima?](#)

A state of emergency has also been declared at a second nuclear facility, at Onagawa, after excessive radiation levels were recorded. But Japan's nuclear energy agency said the rise in local radiation levels might have been caused by the Fukushima leak.

So, what went wrong at Fukushima?

### [Japan earthquake: Record-shattering breakwater can't hold back tsunami](#)

The Kamaishi, Japan, breakwater was in the Guinness World Records as the deepest on the planet. It was a product of decades of research on wave dynamics and dissipation. But the tsunami made short work of it.

### [Japan earthquake: Insurance cost for quake alone pegged at \\$35 billion, AIR says](#)

The magnitude 9.0 earthquake could mean billions of dollars in insured-property losses, and that's without factoring in the tsunami, according to a new analysis from AIR Worldwide.

### [The Scariest Earthquake Is Yet to Come](#)

The tsunami that struck Japan was the third in a series of events that now put California at risk.

### [How Black is the Japanese Nuclear Swan?](#)

Reactors are equipped with multiple cooling systems as part of the defence in depth design principle. The idea is that there should be redundant systems with no components in common, and therefore (theoretically) no possibility for common mode failures. Each system should be capable of independently preventing a design-basis accident.

Japan is a sophisticated country with a long history of nuclear power, and also a long history of seismic activity. One could argue that this is Japan's Hurricane Katrina moment, in that a predictable scenario was not adequately prepared for in advance despite the potential for very severe consequences.

### [Partial Meltdowns Presumed at Crippled Reactors](#)

TOKYO — Japanese officials struggled on Sunday to contain a widening nuclear crisis in the aftermath of a devastating earthquake and tsunami, saying they presumed that partial meltdowns had occurred at two crippled reactors and that they were bracing for a second explosion, even as they faced serious cooling problems at four more reactors.

### [Workers scramble to cool reactors; official says 2nd blast possible](#)

(CNN) -- Japanese efforts to prevent a nuclear meltdown by flooding reactors with seawater are a last-ditch attempt, but do not mean that a nuclear tragedy is imminent, experts said Sunday.

Nuclear experts who have followed the developments at the damaged Fukushima Daiichi nuclear plant in northeastern Japan say that despite several setbacks, the possibility of massive radiation exposure remains low -- at least for now.

### [Japanese nuclear plant calls state of emergency](#)

A state of emergency has been called at a Japanese nuclear plant in Miyagi prefecture, one of the areas hit hard by Friday's earthquake and tsunami.

The UN's atomic watchdog said the Onagawa nuclear facility went into a state of emergency on Sunday after excessive radiation levels were recorded.

The Onagawa plant is in Miyagi prefecture, one of the areas hit hard by Friday's tsunami. There was a fire at the plant after the earthquake, which shut down the plant's cooling systems.

### [Russia offers help on fixing Japanese N-plants](#)

Russia has formally offered Japan help on operations to fix tsunami damage to nuclear power plants. Russian experts have already supplied that country with their assessment of what to expect from two reactors at the Fukushima plant, in which cooling systems are out of order.

### [Anxiety, fatigue grow among evacuated citizens near nuclear plant](#)

SENDAI (Kyodo) -- Anxiety and distress was growing among evacuees near the Fukushima No. 1 nuclear power plant Sunday, a day after a blast occurred and fears increased over possible radioactive leaks from the plant that was hit by Friday's massive earthquake.

"What's going to happen, and when...?" a local town official said in expressing concerns, although he noted that people are not panicking. He evacuated from the Fukushima Prefecture town of Okuma, where the plant is located, to the city of Tamura in the same

prefecture, farther away from the plant.

### [Official: 2nd Japan nuclear reactor at risk of explosion](#)

Japan was fighting to contain what could be the world's worst nuclear disaster in 25 years with the government warning there could be an explosion at a second reactor crippled by Friday's devastating earthquake.

More than 170,000 people have been evacuated from the area around two nuclear power plants in Fukushima as a precaution, officials said Sunday.

It was also confirmed that 22 people had been contaminated by radiation.

There is believed to have been a partial meltdown of the fuel rods following an explosion and leak Saturday from the No. 1 reactor at the Fukushima Dai-ichi power plant, 150 miles north of Tokyo.

### [Thousands flee nuke horror from Fukushima plant after earthquake and tsunami](#)

JAPAN'S largest and oldest nuclear power plants appeared on the verge of meltdown last night in the wake of the earthquake and tsunami that is feared to have killed tens of thousands of people.

More than 200,000 people were fleeing the area around the two Fukushima plants, about 250km north of Tokyo, as the magnitude of Friday's earthquake was upgraded to 9.

### [Japan faces toughest crisis since WWII, prime minister says](#)

Reporting from Sendai, Japan and Beijing — Japanese Prime Minister Naoto Kan told reporters Sunday his country was facing its most difficult challenge since World War II and called on his people to unite in the face of a devastating earthquake and tsunami and potential nuclear crisis.

### [Q&A: Explosion at Fukushima nuclear plant](#)

Nuclear energy experts were working on Saturday to establish the chain of events at Japan's Fukushima Daiichi facility, which suffered an explosion following Friday's 8.9 magnitude earthquake. Experts outlined the range of possible scenarios, based on information available from official Japanese sources.

### [Japan to ration electricity with rolling blackouts](#)



TOKYO (AP) — Tokyo Electric Power says it will ration electricity with rolling blackouts in parts of Tokyo and other Japanese cities.

The planned blackouts of about three hours each will start Monday. They are meant to help make up for a severe shortfall after key nuclear plants were left inoperable due to the earthquake and tsunami in northeastern Japan.

### [Meltdown fears spark 'turning point for world'](#)

AUSTRALIA'S most prominent nuclear power advocate believes the possible meltdown in Fukushima will set back support for its introduction, but not kill it.

Ziggy Switkowski's optimism came as German Chancellor Angela Merkel described the damage to Japan's nuclear power supply as a "turning point for the world".

### [Will nuclear industry feel the fallout from Japan?](#)

Japanese officials continue to struggle to contain the damage at a nuclear plant in Fukushima, but it may be much harder to limit the fallout for the future of nuclear energy in the United States.

Images of an explosion Saturday and word of a possible partial meltdown have rippled around the globe and are expected to linger for U.S. nuclear advocates already wrestling with their own economic and political challenges.

### [Scientists predict shift against nuclear power](#)

Nuclear experts convened by the Union of Concerned Scientists, an environmental campaign group, said they expected the explosion at the Fukushima plant to undermine public support for nuclear power, however serious the incident ultimately turned out to be.

### [Japan reminded of nuclear safety fears](#)

For many Japanese the blast at the Fukushima Daiichi power plant on Saturday will reignite deep-seated distrust of the nuclear power industry following a series of major disasters.

Although Yukio Edano, the chief government spokesman, stressed that the government was taking all possible measures to contain the impact of the explosion, it did not take long for criticism to begin.



[Nuclear is not failsafe says Dr Karl Kruszelnicki](#)

THERE is no such thing as a failsafe nuclear power plant, science commentator Dr Karl Kruszelnicki said yesterday.

"Nuclear reactors are not failsafe. They won't fail in a safe way. They can go bang as Chernobyl did," he said.

[Japanese Government Responsible for Nuclear Cleanup Costs, Brokers Say](#)

The liability costs associated with cleaning up after the crippled Fukushima nuclear plant will ultimately be borne by the Japanese government instead of the private insurance market, according to experts from the insurance industry.

Those liability costs, if they prove substantial, will place an added burden on the government as it copes with tens or even hundreds of billions of dollars in other expenses linked to the massive rebuilding effort that lies ahead.



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