

Greenpeace claimed that this successful incursion highlighted security shortcomings at the facility, proving that security around spent nuclear fuel pools is particularly lacking and that France's 58 nuclear reactors are vulnerable to attack.



Cruas-Meyssas nuclear power plant

France's state-owned energy giant EDF which operates the plant confirmed the intrusion but said the plant's safety was "never in danger." (That's true since they were Greenpeace activists, but Greenpeace's point was that if activists can get in so could terrorists and that would be a different kettle of fish!)

The incident is the second of its kind in as many months. In October, Greenpeace activists got inside a nuclear plant in Cattenom, near the border with Luxembourg, and set off fireworks at the foot of a spent fuel pool.

In a report in October Greenpeace noted that most of France's nuclear plants were built before the rise of threats from non-state terror groups such as the Islamic State group and Al-Qaeda and claimed that their defenses were weak, which they subsequently have proved on two occasions.

## FRENCH NUCLEAR DELAYS ESCALATE

On January 12<sup>th</sup>, the US business analysis firm Bloomberg's claimed that "France faces a decade-long struggle to upgrade its nuclear power

plants."

It also reported that the European Pressurised Reactor (EPR) ordered for Hinkley C "faces further delays" after the disclosure that defects were detected in one of the same models under construction in China.

Bloomberg's report continues: "China General Nuclear Power Corporation, which is building two [EPR] reactors in a joint venture with *Electricité de France* (EDF) near Macau in southern China, said it had found "local defects" in the Taishan 1 reactor. It said that welding in the de-aerator, which is used to remove oxygen from water circuits, was defective. The parts had been replaced, it said. Taishan 1 is due to come on stream this month to become the world's first functioning example of the European reactor." As far as I'm aware it didn't come on stream "this month" (ie December 2017)!

Note that this is a different defect to the problem of "anomalies" found in the casting of some of the pressure vessels produced for use in EDF reactors including Hinkley C which led to the pressure vessel already forged for Hinkley C having to be cut up and subjected to checks to determine the extent of the risks caused by the "anomalies". I don't know whether a replacement has yet been forged.

No EDF nuclear reactor has yet started operating anywhere in the world. Five such plants are in construction. All have suffered horrific problems and delays.

The two EDF reactors being built in China were originally planned to open in 2014; they latest predicted date, the last half of 2017 for one of them, seems already to have been missed.

The EDF being built in France, started building in 2007, and was predicted to open in 2012. However its latest predicted date of opening has been put back to the end of 2018.

The EDF in Finland began construction as long ago as 2005 with a predicted completion date of 2009. The latest predicted date of operation is 2019.

The two EDF reactors planned for Hinkley C. It was originally rather unwisely announced that at least one of them would be open to cook Christmas turkeys by Christmas 2017. EDF now claims to have started construction with a predicted opening date of 2026. However it only seems they are doing extensive preparatory work, including foundations, a sea wall and a new pier; I can find no evidence they've started building the actual reactor.

## "FUKUSHIMA UPDATE 2018"

For some years, Kick Nuclear member Rik since 2012 has been producing excellent detailed updates on the unfolding of the Fukushima disaster, which we give out outside the Japanese Embassy and the Tokyo Electric Power Company (TEPCO) on our regular Friday vigils, as well as at other events.

I thought to celebrate this excellent publication I would use this page to reproduce the opening paragraphs of the pamphlet (It runs to 2xA5 pages in English, followed by 2xA5 pages in a Japanese translation.) The full text of previous editions of the updates are all available on the Kick Nuclear website, but as of the date of writing this, the 2018 one isn't on it. Contact me (the editor) if you want a paper copy of the briefing. David

"Seven years after the triple meltdowns at the Fukushima Daiichi nuclear power plant, TEPCO, the company who own and run the plant, have finally managed to locate some of the melted fuel inside one of the three wrecked reactors. By sending a camera robot into reactor 3 they have confirmed that most of the 364 tons of melted fuel has burnt through the bottom of the reactor pressure vessel (RPV) and has slumped to the concrete floor of the primary containment vessel (PCV) underneath. TEPCO said that they think that the molten fuel had escaped through the holes in the RPV, through which the control rods are inserted, by melting the graphite gaskets which sealed the holes. The designers used graphite because they assumed that the reactor fuel would never melt down.

"TEPCO also got robots into reactors 1 and 2, but one of these was quickly overcome by the high levels of radiation inside the reactor and the other became caught in the fuel debris. Now they will have to design metal-cutting machinery which can get inside the PCVs to chip away at the deadly piles of melted fuel, without also being wiped out by the radiation. How to shield the workers operating this machinery? They could fill the PCVs with water – if they could find and patch the many holes in them. "We will have it all done in 40 years," they still claim. But most of them will be retired long before then, leaving the next generation to sort it out.

"TEPCO have now surrounded the four reactor buildings with an "ice wall" composed of vertical pipes which freeze the soil around them to create a barrier. This is to reduce the 400n tons per day of groundwater which has been flowing through the site, entering the basements of the of the reactor buildings and becoming strongly radioactive through contact with the melted fuel there before flowing on into the ocean... (This gives you a bit over a quarter of the text of the Update. See at the top how to get hold of the full text.)

# KICK NUCLEAR & NUCLEAR TRAINS

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## REGULAR FRIDAY SOLIDARITY VIGILS

**Every Friday** (since August 2012): leafletting outside the Japanese Embassy, 101-104 Piccadilly (Green Park tube) from 10am-12.30pm; and then outside Tokyo Electric Power Co. offices, 14-18 Holborn (Chancery Lane tube) from 1-1.30pm. Held in solidarity with the anti-nuclear movement in Japan. Organised by: *Kick Nuclear and Japanese Against Nuclear UK (JAN UK)*

## NEXT JOINT KN/NTAG PLANNING MEETINGS

**Monday January 8<sup>th</sup>**, 7pm, At CND Office. (Address at top.)

## FUKUSHIMA 7<sup>th</sup> ANNIVERSARY EVENTS

**Friday March 9<sup>th</sup>, 2018:** Vigil outside Japanese Embassy, 5.30-7.30pm.  
**Sunday March 11<sup>th</sup>:** March from Japanese Embassy to Houses of Parliament for **Rally** in Old Palace Yard. Assemble for march outside Embassy at noon.  
**Wednesday March 14<sup>th</sup>:** **Public Meeting in Parliament**, in Attlee Room, Portcullis House.

## FRENCH NUCLEAR PLANT BREAK-IN

On November 28<sup>th</sup> last, Greenpeace activists broke into the French nuclear power plant Cruas-Meysses in the southeastern Ardeche region. It has four reactors. Around 20 activists got inside the plant and four managed to scale the walls of one of the buildings containing pools used to cool highly radioactive spent fuel rods and set off flares. Regional security officials said 22 people were arrested.