This is rather a worrying development. The plant is the first of the same Boiling Water type as the Fukushima-Daiichi rectors that melted down in the 2011 Fukushima disaster to receive approval to restart since that disaster. It is also on the same north-east coast of Japan as Fukushima-Daiichi and was itself damaged by the tsunami that caused the disaster.

It is likely that the 825MW No 2 reactor at Onagawa will be the first reactor at the plant to reopen after safety reinforcements are completed, which the owner says will be by March 2023, when the plant will have been shut down for 12 years.

As reported in the November edition of this newsletter, Japan currently has nine reactors operating out of the 54 that were prior to the Fukushima disaster, as it has had for some time, but is now set to have a 10th in 2023. The pace of reopening is very slow!

JAPAN TO DUMP RADIOACTIVE FUKUSHIMA WATER INTO THE PACIFIC

(I'm sorry this news is rather late to appear in this newsletter.) It was widely reported on October 16th that the Japanese Government had decided to release more than a million tons of radioactive water into the Pacific. The existence of this water is a product of the Fukushima disaster. The operation is likely to start in 2022 and take up to 30 years to complete.

The water has been largely produced by the continuing need ever since 2011 to keep the cores of the three destroyed nuclear reactors from melting-down once more, which is carried out by pouring water continuously down through the reactors. The water becomes radioactive during this process.

According to the owners of the Fukushima plant, TEPCO (The Tokyo Power Company), 1.5 million tons of the contaminated water are currently stored in 960 massive tanks, with 170 more tons of the stuff being stored afresh each day and the amount of it being added each day is 170 tons, which means that the tanks will be full in a couple of years. However it is not clear that this requires the whole lot or any of it to be dumped into the Pacific. Two questions arise: 1) Why did TEPCO go to the effort of storing all this radioactive water over the last 10 years

if it's now suddenly to dump all of it in the Pacific; 2) If there is a good reason for storing the water, couldn't TEPCO just build more tanks?

TEPCO however claims that all the water has been treated to remove much of its radioactive content, only leaving the fairly harmless radioactive tritium.

Many scientists however dispute both claims, that tritium is fairly harmless and that all other radioactive contaminants have been removed.

Wikipedia cites four authoritative reports that conclude that though tritium is not dangerous externally (its beta particles cannot penetrate skin), it can be a radiation hazard when inhaled, ingested via food or water, or absorbed through the skin, though this hazard is limited by the fact the lithium has a short half-life in the body of 7-14 days.

The larger problem is that other radioactive elements remain in the water after treatment.

On 23rd October 2020 a report entitled Stemming the Tide was published about the results of an investigation by Greenpeace Japan and Greenpeace East Asia. This found that the "treated" water contained dangerous levels of Carbon-14, a major contributor to collective human radiation dose with a potential to damage human DNA and that the facility used to treat the water was not designed to remove carbon-14 from it. Moreover Carbon-14 has a half-life of 5,370 years.

Other radioactive elements found to remain in the tanks include cobalt-60 and strontium-90.

Pouring all this radioactive water in the Pacific off the coast of Japan will be a massive blow to the Japanese fishing industry, and Japanese fisherman are strongly opposed.

So why is the Japanese government so keen to dump the water? I think it is an image problem. The government is determined to present Japanese as back to normal after Fukushima and having nearly 1000 massive tanks holding radioactive water around is a potent reminder that it isn't.

In a similar vein is the Japanese government's continued insistence that the Olympic Games postponed from last year will go ahead this year, even though Tokyo and Osaka and several other prefectures are under a state of emergency aimed at halting a third covid-19 wave. Thus a recent report, in The Times (UK), that there is a growing

consensus within the ruling Liberal Democratic Party that this summer's games must be scrapped and that Japan should bid for the next available slot in 2032 was met with a blank denial

The emergency is planned to last until at least February 7th. Some decision will surely have to be mad by March 25th, when the Torch Rally is planned to start from Fukushima, of all places. (Nuclear disaster? What nuclear disaster?)

All this is reminiscent of last year when, in March, Japan abruptly announced the postponement of the Games after insisting for weeks that it would go ahead. Incidentally the level of Covid-19 infections in March 2020, in Japan at least, was very low indeed compared to today.



Some of the nearly million tanks storing radioactive water from Fukushima

March 11th this year marks the 10th anniversary of the Fukushima disaster. It seems unlikely we will be able to hold our usual annual events in London to mark the anniversary: the march and rally and public meeting in Parliament are likely out, but we might manage the vigil outside the Israeli Embassy, socially-distanced of course. Other ideas welcome.

KICK NUCLEAR monthly newsletter

January 2021





Editor: David Polden, Mordechai Vanunu House, 162 Holloway Rd. N7 8DQ; www.kicknuclear.com; www.nonucleartrains.org.uk; 020-7700 2393

Regular Friday solidarity vigils, nuclear train action group stalls and joint KN/NTAG planning meetings all currently suspended due to the pandemic.

JAPAN: NUCLEAR POWER STATION TO REOPEN

On 11th November, Japan's Miyagi prefecture approved the putting back into service of Tohoku Electric Power's Onagawa nuclear power plant. This removed the final hurdle to restarting the plant, it having already received a safety clearance from Japan's nuclear regulation authority last February.



Onagawa nuclear power station