

China nuclear reactor shut down for maintenance after damage

30 July 2021



The reactor is located in Taishan in China's southern Guangdong province, not far from Hong Kong.

A reactor at a nuclear plant in southern China has been shut down because it is damaged, the operator said Friday, but it insisted there were no major safety issues.

Chinese authorities last month blamed minor [fuel](#) rod damage for a build-up of radioactive gases at the Taishan plant in Guangdong province, describing it as a "common phenomenon" with no need for concern.

French nuclear firm Framatome, which helps operate the plant, last month reported a "performance issue" which caused the US government to look into the possibility of a leak.

"After lengthy conversations between French and Chinese technical personnel, Taishan Nuclear Power Plant... decided to shut down Unit 1 for maintenance," China General Nuclear Power Group (CGN) said Friday in an online statement.

The company added that "a small amount of fuel damage" had occurred.

CGN said both reactors at the plant have "maintained safe and stable operations throughout" and that the faulty unit is "completely under control".

Engineers will now "find the cause of fuel damage and replace the damaged fuel", the statement added.

There are more than 60,000 fuel rods in the reactor and the proportion of damaged rods is "less than 0.01 percent", China's environment ministry and nuclear regulator previously said.

They called the damage "inevitable" due to factors including fuel manufacturing and transportation.

French energy giant EDF—the majority owner of Framatome—also previously blamed the build-up of radioactive gases on deteriorating coating on some uranium fuel rods.

EDF said it was first informed about the fuel rod problem in October, but only learned about the gas build-up in mid-June.

Official environmental monitoring data shows a slight increase in radiation near Taishan compared with other nuclear [plants](#) in China, but experts say this remains within the normal range of environmental radiation levels in Guangdong.

'Permanently monitored'

The shutdown follows the French firm stating last week that it would have shut down a nuclear reactor in France if it suffered problems similar to those reported at the Taishan plant.

"Based on analyses, EDF operating procedures for its French plant would have led it to shut down the reactor to fully understand the problem and halt its development," the company said in a statement.

However, they noted that the situation was "not urgent".

The radioactivity levels in the water of the [reactor's](#) primary circuit "remain below regulator levels in place for Taishan, which are in line with international standards", they said.

But based on earlier data provided by Chinese officials, the deterioration of the structural integrity of some [fuel rods](#) "appears to be continuing, and is being permanently monitored", the firm added.

The problem is the latest blow to the European Pressurised Reactor (EPR) design, which is being used to build power plants in France, Britain and Finland that have racked up delays and billions of euros in cost overruns.

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