

GE defends nuclear plant design

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General Electric defended its 40 year old Mark 1 reactors at the center of Japan's nuclear crisis Friday, saying that early questions about reactor's safety had long been addressed.

GE rejected recent reports of possible design weaknesses in the Mark 1, which accounts for five of the six reactors at the Fukushima plant, threatened with meltdowns after [cooling systems](#) failed.

"The Mark I meets all regulatory requirements and has performed well for over 40 years," it said in a statement.

"The Mark I containment designs were modified in the 1980s to address improvements in the technology and changing regulatory requirements. All these changes required by regulatory authorities have been implemented," it said.

GE did not address whether the Mark 1 was designed sufficiently to withstand the specific chain of events that damaged the Fukushima Daiichi (No. 1) plant -- the 9.0-grade earthquake and massive tsunami that shut down the plants and their crucial cooling systems last Friday.

"We believe it is too early to know specifically what has happened in each of the reactors at Fukushima Daiichi," it said.

Blasts attributed to [hydrogen](#) buildup have occurred at four of the Fukushima units, and the containment vessels at the reactors two and three have reportedly been damaged but not apparently ruptured.

On Friday the Japanese nuclear safety agency raised the Fukushima crisis level to five from four on the international scale of gravity for atomic accidents, which goes to as high as seven.

"The cooling function was lost and the reactor cores were damaged" at three of the reactors, according to a spokesman of the Nuclear and Industrial Safety Agency.

"[Radioactive particles](#) continue to be released in the environment," he said.

Reactors one, two and three were operating at the time of the [earthquake](#) and halted automatically.

But the cores are believed to have partially melted because the quake and tsunami knocked out the plant's reactor cooling systems, sparking a series of explosions and fires.

The Mark 1 was one of the most popular reactor models in the 1960s and 1970s, with 23 installed in US power plants and 32 elsewhere in the world.

But when it was new in the 1960s and 1970s, critics from the nuclear industry said it did not have the strength to handle massive pressure buildups in the reactor housing if the reactor overheated.

GE, though, said the reactor design had been kept up to standard, and that the US Nuclear Regulatory Commission had studied criticisms, especially from one of its own officials, Stephen Hanauer, and finally rejected them in 1980.

It cited a 1980 NRC report saying that "the staff, including Dr. Hanauer, has concluded that the pressure suppression concept for containment

design is safe."

GE said its units were built "to withstand predicted peak containment pressures based upon their design under accident guidelines."

"Safety remained our top priority, and the Mark I design met all NRC design criteria.

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