Japan evacuates thousands from vicinity of two nuclear power plants

But local officials of Fukushima Prefecture said at least three patients at a hospital less than two miles from the damaged nuclear plant have been exposed to radiation, Japanese news media reported. The three, chosen for random radiation testing from 90 patients and staff who were awaiting evacuation by helicopter, needed to be decontaminated, although they have not yet shown physical symptoms of radiation poisoning, officials said.

Authorities were preparing to distribute potassium iodide tablets to help protect against thyroid cancer from radiation exposure, officials said.

Earlier, Japan's Nuclear and Industrial Safety Agency (NISA) had warned that the Unit 1 reactor, whose cooling system had been crippled by the giant earthquake Friday, could be nearing a meltdown and that two radioactive substances, cesium and radioactive iodine, had already been detected nearby.

The full extent of the blast remained unclear, but footage on Japanese television showed that the walls of the building housing the reactor crumpled, leaving a skeletal metal frame, according to the Associated Press.

Construction of Unit 1, a 439-megawatt boiling water reactor, started in 1967, and commercial operation began in 1971. It was reportedly scheduled to be shut down on March 26.

Japanese authorities declared a state of emergency for the Fukushima reactors as military and utility officials scrambled to tame rising pressure and radioactivity levels inside the units and stabilize the systems used to cool the plants' hot reactor cores.

Radiation had earlier surged to about 1,000 times the normal level in the control room of one reactor, NISA.
said. Meanwhile, Tokyo Electric Power Co. said Saturday that the temperatures at two other reactors at a different power plant were rising and that it had lost control over pressure in three reactors there.

The explosion at the reactor is certain to rattle confidence in nuclear power in Japan, victim of the only nuclear weapons explosions and where people have long been sensitized to the dangers of radioactive releases. In the United States, it was likely to deal a severe blow to advocates of a nuclear power renaissance.

In Tokyo late Saturday afternoon, news of the explosion sparked a run on bottled water supplies. At a Tokyo convenience store that had been well stocked earlier in the day, a line of a half-dozen customers was picking up the last bottles.

"I saw a chain letter e-mail from my friend telling about the explosion in Fukushima," said one shopper who, as is typical there, wanted only to give his first name, Masahito. "Right now they’re saying it’s a nuclear accident. I have been trying to buy enough water for one week, just in case, but I can’t find it anywhere. I’ve already been to four places, including a supermarket."

The earthquake has led to the shutdown of 11 of Japan’s 55 nuclear power reactors, representing nearly 20 percent of the country’s capacity. It will deal an economic blow to Japan, which relies on nuclear power for one-third of its electricity generation, and could complicate economic recovery efforts.

"It’s a very serious situation for the reactors and might ultimately render those reactors unusable," said Howard Shaffer, a former Navy submarine engineer and a member of the American Nuclear Society’s public information committee.