As at many plants in the U.S. and around the world, the Japanese plants have on-site storage for spent fuel rods. The reason is that no one has come up with a working permanent storage solution. These spent fuel rods are now beginning to pose a serious risk at the Japanese plants, according to the <u>Washington Pos</u>t:

The pools, which sit on the top level of the reactor buildings and keep spent fuel submerged in water, have lost their cooling systems and the Japanese have been unable to take emergency steps because of the multiplying crises.

By late Tuesday, the water meant to cool spent fuel rods in the No. 4 reactor was boiling, Japan's nuclear watchdog said. If the water evaporates and the rods run dry, they could overheat and catch fire, potentially spreading radioactive materials in dangerous clouds.

This begins to remind me a little of multiple organ failure in a critically ill patient, where there are just too many failing systems to save the patient. I certainly hope I'm wrong about that analogy.

UPDATE (via CNN): The crew at the Fukushima Daiichi nuclear plant has now had to abandon the control room because of high radiation levels.